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January 23, 2012

Mr. Sean Boyles
North Carolina Department of Environment and Natural Resources
Division of Waste Management
Superfund Section – Inactive Hazardous Sites Branch
225 Green Street, Suite 714
Fayetteville, North Carolina 27605

Re: Remedial Assessment/Soil Excavation Report
Flanders/PrecisionAire Facility
2121-A Wal Pat Road
Smithfield, North Carolina
PSI Project Number: 511-324

Dear Mr. Boyles:

On behalf of Flanders Corporation, please find enclosed a Remedial Assessment/Soil Excavation Report for the referenced facility.

Should you have questions or comments concerning this submittal, please contact the undersigned at (704) 598-2236, ext. 102.

Sincerely,
Professional Service Industries, Inc.

Bryan M. Lucas
Senior Project Manager

cc: Ms. Katie Fritzler, Flanders Corporation

Enclosure

REMEDIAL ASSESSMENT AND SOIL EXCAVATION REPORT FOR THE FORMER RAILROAD SPUR, EXISTING SOIL STOCKPILE, AND WASTEWATER SUMPS

FLANDERS/PRECISIONAIRE FACILITY
2121-B WAL-PAT ROAD
SMITHFIELD, NORTH CAROLINA

LATITUDE: 35.494547 - 35° 29' 04.37" N
LONGITUDE: 78.360947 - 78° 21' 39.41"W

PREPARED FOR:

MS. KATIE FRITZLER
FLANDER CORPORATION
531 FLANDERS FILTERS ROAD
WASHINGTON, NORTH CAROLINA 27889

SUBMITTED TO:

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SUPERFUND SECTION – INACTIVE HAZARDOUS SITES BRANCH
225 GREEN STREET, SUITE 714
FAYETTEVILLE, NORTH CAROLINA 28301

PREPARED BY:

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PSI PROJECT 0511324

January 12, 2012

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Mr. Bryan M. Lucas
Senior Project Manager

NORTH CAROLINA PROFESSIONAL SEAL 038260 1/12/12 ENGINEER CATHERINE M. LANDRY

Ms. Cate Landry, P.E.
Project Engineer

Ms. Donna Cline, P.E. (FL)
Principal Consultant

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STATEMENT OF LIMITATIONS

The information provided in this Remedial Assessment/Soil Excavation Activities Report prepared by PSI, Project Number 0511324, is intended exclusively for Flanders Corporation, W.P. Carey & Company, LLC, and the North Carolina Department of Environment and Natural Resources (NCDENR) for the Flanders/PrecisionAire Facility as they pertain to the property at 2121-B Wal-Pat Road, Smithfield, North Carolina at the time the activities were conducted. No unnamed third party shall have the right to rely on this report without the express written consent of PSI, as well as payment of the then current reliance letter fee. The professional services provided have been performed in accordance with practices generally accepted by other appropriate environmental professionals, geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. PSI is not an insurer and makes no guarantee or warranty that the services supplied will avert or mitigate occurrences, or the consequences of occurrences, that the services are designed to prevent or ameliorate. As with all subsurface soil and groundwater sampling, there is no guarantee that the work conducted has identified any and all sources or locations of petroleum hydrocarbons or hazardous substances or chemicals in the soil or groundwater. This report is issued with the understanding that Flanders Corporation is responsible for ensuring that the information contained in this report is brought to the attention of the appropriate regulatory agency, if any.

CERTIFICATIONS

Work outlined in this report which constitutes the public practice of engineering has been signed and sealed by an engineer licensed in the state of North Carolina.

1 INTRODUCTION

Professional Service Industries, Inc. (PSI) has prepared this Remedial Assessment and Soil Excavation Report for the Flanders/PrecisionAire Facility located at 2121-B Wal-Pat Road, Smithfield, North Carolina for submittal to the North Carolina Department of Environmental and Natural Resources (NCDENR). The assessment and soil excavation activities were completed to comply with the NCDENR Inactive Hazardous Site Branch (IHSB) "Guidelines for Assessment and Cleanup" dated February 2011 and August 2011. This report documents the assessment and soil excavation activities that were conducted at the Flanders/PrecisionAire.

The remedial assessment and excavation activities included:

1. Soil assessment for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOC), priority pollutant metals, and hexavalent chromium for the purpose of delineating to the applicable North Carolina Department of Environmental Natural Resources (NCDENR) Inactive Hazardous Site Based (IHSB) Soil Remediation Goals (SRGs).
2. Toxicity Characteristic Leaching Procedure (TCLP) testing for the purpose of comparing the results to the North Carolina Groundwater Standards (2L).
3. Groundwater screening and sampling for VOCs, SVOCs, priority pollutant metals, and hexavalent chromium the purpose of confirming that the contaminants of concern in soil are not contributing to exceedances of the North Carolina Groundwater Standards (2L).
4. Soil excavation activities and confirmation soil sampling.

This Remedial Assessment and Soil Excavation Report presents the site characterization data collected during Phase I Environmental Site Assessment (ESA) and Enhanced Phase II ESA along with additional assessment activities and corrective action activities.

2 SITE HISTORY AND SOURCE CHARACTERIZATION

2.1 SITE HISTORY

The Flanders/PrecisionAire manufacturing facility located in Smithfield, North Carolina is situated on a 27.03 acre land parcel. The main manufacturing/warehouse building is approximately 396,523 square feet (SF) currently divided into 11,100 SF of office space, a 58,000 SF raw material warehouse, 61,000 SF of manufacturing space, and 266,423 SF of finished good warehousing with approximately 77,000 SF of that on a mezzanine level. This facility has a loading dock with asphalt pavement truck parking and an area for employee parking. A pump house building is located along the west side of the main building which is approximately 750 SF in size. In addition, the subject property has a 250,000 gallon aboveground water tank, a stand-alone security office, a shed used to protect the water pressure regulator, and a mothballed remediation system building. The buildings were reportedly originally constructed in 1960 with an approximately 76,500 SF addition to the east side of the main building circa 1975. An adjoining smaller 6.1 acre land parcel is currently vacant and is reportedly scheduled to receive a 153,440 SF expansion of warehouse/production area. Flanders/PrecisionAire Division has conducted the manufacturing of pelted air filters at the site since 1997 when Flanders Corporation purchased the property.

A topographic map illustrating the site location is provided as **Figure 1**. A site vicinity map is included as **Figure 2**. **Figure 3** displays a site map of the facility, and identifies the three areas of concern.

The adjoining and surrounding properties are currently developed as follows:

North – Railroad right-of-way (Seaboard) followed by residential and commercial developed property consisting of gasoline stations, vacant land, mobile home park, auto repair facilities, office space and warehouses.

East – Commercial developed property with one structure located at 1801 Wal-Pat Road.

South – Wal-Pat Road followed by US Highway 95 followed by a road followed by cleared and wooded vacant and residential land.

West – Wal-Pat Road followed by industrial development (Omni Source Corporation, a metal scrap yard).

2.2 SOURCE CHARACTERIZATION

In February 2011, PSI conducted a Phase I Environmental Site Assessment (ESA) to search for evidence of a recognized environmental condition (REC) at the subject site. The Phase I ESA was conducted at the request of W.P. Carey & Company, LLC and

completed in general accordance with the scope and limitations outlined in PSI's proposal dated January 6, 2011. The scope of the proposal was authorized by W.P. Carey & Company, LLC on January 10, 2011. The Phase I ESA identified ten (10) on-site recognized environmental conditions (RECs) and two (2) off-site RECs in connection with the site.

In May 2011 PSI completed an Expanded Phase II ESA to evaluate the presence or absence of hazardous materials and/or petroleum products in the soil and groundwater as a result of on-site activities and/or migration from off-site sources identified as RECs in the Phase I ESA completed by PSI in February 2011. The Expanded Phase II ESA was conducted at the request of W.P. Carey & Company, LLC on the behalf of Flanders Corporation, and completed in general accordance with the scope and limitations outlined in PSI's proposal dated February 25, 2011. The scope of the proposal was authorized by Flanders Corporation on March 9, 2011.

The Expanded Phase II ESA, consisted of advancing thirty-two (32) soil test borings (GP-1 through GP-32) in various areas across the subject property. No borings exceeded a depth of twelve (12) feet below ground surface (bgs). At the time of drilling, groundwater was encountered at depths ranging from eight (8) feet bgs to ten (10) feet bgs. Groundwater was encountered in all thirty-two (32) of the soil test borings.

Based on the results of the Expanded Phase II ESA (a copy is provided in Appendix E), PSI was placed under contract with Flanders Corporation to remove three underground storage tanks (USTs) from the subject site and abandoned the two waste water sumps. PSI completed the UST closure activities and sump abandonment in June 2011. A UST closure report was submitted to the UST Section in the NCDENR Regional Office in Fayetteville, North Carolina. On August 19, 2011, the UST Section NCDENR Region Office issued a "No Further Action Letter" for the closure of the USTs. The summary of the sump abandonment activities are summarized in this report.

Following the UST removal activities, waste water sump abandonment, PSI was contracted by Flanders Corporation to further assess the soil and/or groundwater in the vicinity of the former railroad spur, soil stockpile, and waste-water sumps at the facility.

Based on the results from the Expanded Phase II ESA Report, three (3) of the on-site RECs were determined to require further assessment activities. The three RECs are summarized below:

- The former railroad spur located along the northern part of the facility that was utilized while the property was occupied by Fieldcrest Mills.

- During the site reconnaissance, on the east side of the building on the vacant portion of the subject property a 30 by 30 foot area of stock soil with some debris (wood) was observed by PSI. The pile of soil was covered with grass and saplings, indicating that the pile has been at this location for some time (greater than a year).

- PSI observed two sumps on the subject property. The sumps are located on the southwest side of the facility. Based on information obtained during interviews with on-site personnel, one of the sumps (Sump-1) is used to collect discharge water from the ink sink located inside of the facility. Mr. Brantley with Flanders indicated that the sink is used by the employees in the print area to wash their hands and clean the printing plates when needed. He also indicated that the sink discharges into the sump and a pump transfers the discharge water to the sanitary sewer. PSI observed this sump to be in a grass area just south of the chiller towers. There were no pungent odors noticeable around the sump; however, there was distressed vegetation around the sump. PSI removed the distressed vegetation and black soil from the cover of the sump to gain accesses. After removal of the steel lid PSI observed the sump to be round, constructed of concrete, and full of black water. There was also an electric sump pump within the sump.

  The second sump (Sump-2) and/or oil/water separator was located near the 10,000-gallon #6 oil tanks. This sump had a concrete cover with a steel access lid. There were no noticeable odors or visible staining in the area of the sump. PSI removed the steel lid to inspect the interior of the sump. The sump was full of black water that had a slight sheen. There were three pipes within the sump that were covered with a thick black substance or sludge; approximately 24-inches of black sludge was estimated in the sump. There were no pungent odors or petroleum odors within the sump or associated with the sludge. Mr. Brantley with Flanders did not know what the sump was used for or if it was still being used. He indicated that the black material on the pipes in the sump appeared to be consistent with the ink the facility uses.

2.3 PROPERTY OWNERSHIP

Based on historical data reviewed from circa 1960 the subject property appeared to be used for agricultural land. From 1960 to approximately 1990 the subject property was developed for industrial use and was occupied by Fieldcrest Mills. Fieldcrest Mills used the facility to manufacture electric blankets. Between 1990 and 1997 the property was owned by the Dekko Company who leased the facility to various entities at the same time. Two of the known tenants were the warranty division of Fieldcrest Mills and Channel Master. Channel Master is a corporation which supports the television and

satellite industry by manufacture of accessories for them (i.e. dip switches, cable clips and clams, amplifiers, coaxial cables, etc.). It was reported that during this time no manufacturing activities were conducted on–site by any of the tenants (the facility was used for warehousing only). In 1997 Flanders acquired the subject property and began manufacturing pelleted air filters as Flanders/PrecisionAire. Table 1 summarizes the historical property ownership.

2.4 RELEASE INCIDENTS

There is an on-going incident with the North Carolina Department of Environment and Natural Resources (NCDENR) Inactive Hazardous Site Branch (IHSB). This incident is associated with a chlorinated solvent release to the soil and groundwater at the site that occurred while the property was owned and operated by Fieldcrest Mills (1960 through 1990).

In May 2011 PSI completed an Expanded Phase II ESA at the site. The Expanded Phase II ESA determined that there was soil and/or groundwater impact associated with the former railroad spur, the on-site soil stockpile, the waste-water sumps and the two 10,000-gallon six oil underground storage tanks (USTs) and the 2,000-gallon heating oil UST located on the site. The laboratory results indicated that detected SVOCs and metals in the soil in the above mentioned areas were above NCDENR IHSB SRGs. The analytical results also indicated that there was impacted soil associated with the six oil and heating oil USTs above the NCDENR UST Section MSCCs. Sections of the Expanded Phase II report related to the Remedial Assessment/Soil Excavation Activities of the abandon rail road spur, soil stock pile and the abandon waste-water sumps are summarized in the appropriate sections of this report.

2.5 CORRECTIVE ACTIONS TO DATE

In the late 1990's Fieldcrest Mills had Geraghty and Miller, Inc. develop a Corrective Action Plan (CAP) to addresses the cleanup of the chlorinated solvents in the soil and groundwater at the site. The CAP consisted of a soil vapor extraction and air sparge system. The remedial system was placed in operation in 2001 and taken off line sometime in 2002. Based on information obtained through file reviews (during the Phase I ESA) with NCDENR, the case is not a high priority and there has been no additional assessment and/or cleanup activities documented to NCDENR since the remedial system has been shut down. However, based on information provided to PSI from Flanders, the responsible party's (RP) consultant has been onsite to collect groundwater samples from the existing monitoring wells associated with this release.

On May 2 and 3, 2011 PSI along with Harvest Environmental were on-site to remove three (3) non-registered heating oil underground storage tanks (USTs) from the site (two 10,000-gallon six oil USTs and one 2,000-gallon heating oil UST). A UST closure report

was submitted to the NCDENR UST Section in the Fayetteville, North Carolina Regional Office on May 27, 2011. On June 21, 2011 PSI returned to the site to oversee the removal of the impacted soil stockpile generated during the UST removal activities. In addition PSI supervised the excavation of additional impacted soil located in the area of the former six oil UST product lines. Once the additional impacted soil was removed, PSI collected a soil sample for laboratory analysis, and generated an addendum report which was submitted to the NCDENR UST Section in the Fayetteville, North Carolina Regional Office on July 27, 2011. On August 19, 2011, the UST Section in the Fayetteville, North Carolina Regional DENR Office issued a "No Further Action Letter" for the closure of the USTs.

In addition to removing the USTs the two waste-water sumps were also abandoned. Due to the close proximity of one of the waste-water sumps (Sump-2) to the 10,000-gallon six oil USTs, the sump was removed during soil excavation activities associated with the UST removal. The other waste-water sump (Sump-1) was abandoned in place since the close proximity of underground utilities made removal of the sump non-feasible. The abandonment of Sump-1 consisted of the removal of the liquid and sludge within the sump, followed by cleaning of the sump with a pressure washer. Once the sump was empty and cleaned it was backfilled with grout to within 6-inches of the existing ground surface. The remaining 6-inches was backfilled with soil and seeded.

On October 31, 2011 PSI was authorized by Flanders Corporation to proceed with impacted soil removal activities in the area of the former railroad spur and on-site soil stockpile. On November 14, 2011 through November 17, 2011 PSI and Flinders' remediation contractor, Shamrock Environmental Corporation, (Shamrock) were on-site to remove the impacted soil associated with the former railroad spur and the on-site soil stockpile. The results of these activities are documented in this report.

3 RECEPTOR INFORMATION

3.1 WATER SUPPLY WELLS

PSI conducted a desk top review of public records for the presences of potable wells and/or irrigation wells within 1,500-feet of the known areas of soil impact. In addition, PSI contacted the local water authority and the county health department to confirm that the properties within a 1,500-feet of the impacted soil areas are connected to municipal water and that there are no potable and/or irrigation wells in the area.

No potable wells (drinking water and/or irrigation wells) were identified within 1,500 feet of the identified limits of the onsite soil impact. The subject property is currently utilizing the available public water supply provided by the City of Smithfield/Johnston County. PSI also observed commercial and residential properties within 1,500 feet that are currently utilizing the public water service.

PSI contacted Ms. Christina Thomas with the NCDENR Public Water Supply Section to inquire about any wellhead protection areas within 1,500 feet from the identified limits of the onsite groundwater impact. As of the issuance of this report Ms. Christina Thomas has not responded to PSI e-mail request about well-head protection areas within 1,500-feet of the site.

Subsurface structures within 1,500 feet include underground sewer, water, storm water and other conduits with the closest being one of the city's main sanitary sewer lines and an on-site waterline associated with the on-site fire suppression system. The sanitary sewer line is located within 5-feet of the former railroad spur and the on-site soil stockpile to the northwest. In addition to the sewer line there is a storm sewer line which discharges into the drainage ditch located to the northwest of the on-site soil stockpile.

3.2 SURFACE WATERS

A drainage conveyance exists on the north, west and south property lines of the subject property. These drainage features are utilized to drain surface water runoff from Wal-Pat Road and surface runoff from the site. The Neuse River is located approximately 2,277 feet west of the source area and flows in a north to south direction.

3.3 ADJACENT PROPERTY

Figure 2 identifies the properties adjacent to the Flanders/PrecisionAire Facility. Uses and activities at the site and adjacent properties can generally be described as mixed with residential, manufacturing, commercial operations, and vacant land.

The adjoining and surrounding properties are currently developed as follows:

North – Railroad right-of-way (Seaboard) followed by residential and commercial developed property consisting of gasoline stations, vacant land, mobile home park, auto repair facilities, office space and warehouses.

East – Commercial developed property with one structure located at 1801 Wal-Pat Road.

South – Wal-Pat Road followed by US Highway 95 followed by a road followed by cleared and wooded vacant and residential land.

West – Wal-Pat Road followed by industrial development (Omni Source Corporation, an automotive scrap yard)

4 REGIONAL GEOLOGY AND HYDROGEOLOGY

4.1 REGIONAL GEOLOGY

The project site is located within Johnston County, North Carolina, which lies within the Coastal Plain Physiographic Province of the eastern United States. This province is characterized by gently sloping plains with numerous broad, slowly moving rivers with broad flood plains. Low-lying marsh and swamp regions are also prevalent. The Coastal Plain is comprised of sediments (mainly sands and clays) that have been transported eastward from highlands to the west by erosional forces. Some of these sediments have been consolidated to form sedimentary rock beds such as sandstone and mudstone; however, often the sediments are poorly consolidated or unconsolidated. This process began approximately 200 million years ago and, based on seismic refraction and well data, the depth of these sediments to the underlying basement rock ranges from less than 10 feet at the fall line (the western boundary of the Coastal Plain and the eastern boundary of the Piedmont) to approximately 10,000 feet at Cape Hatteras. Deposition commonly occurred beneath the sea and numerous lenses and beds of hard limestone also occur within the Coastal Plain strata.

Review of the Geologic Map of North Carolina (compiled by the North Carolina Geological Survey, 1985) indicates that the subject site is underlain by Tertiary age Terrace Deposits and Upland Sediments, comprised of gravels, clayey sands and sands with minor iron-oxide cemented sandstones.

4.2 GEOLOGIC EFFECTS ON FATE AND TRANSPORT

The storage, movement, and transformation of contaminants released into the subsurface are critically affected by the hydrologic properties of the vadose and saturated zones. Contaminant fate and transport pathways are largely dictated by hydrogeologic conditions. Geologic structural features caused by tectonic forces or weathering can dramatically impact flow pathways in both the vadose and unsaturated zones. Structural features can have any geometric orientation. Structural features can act as conduits or barriers to saturated and unsaturated flow. Unconformities are found in areas where flows have been deposited over older bedrock material can result in heterogeneous and anisotropic conditions and inconsistent flow regimes. The sections following describe these parameters and assess their significance to this remedial investigation in the context of the physical and chemical mechanisms which control contaminant migration.

5 SITE GEOLOGY

5.1 SITE GEOLOGY

Review of the Geologic Map of North Carolina (compiled by the North Carolina Geological Survey, 1985) indicates that the subject site is underlain by Tertiary age Terrace Deposits and Upland Sediments, comprised of gravels, clayey sands and sands with minor iron-oxide cemented sandstones.

Soil samples were collected from direct push technology *(DPT)* borings during the Environmental Assessment of the former railroad spur, soil stockpile, and wastewater sumps. Soil and groundwater sampling was conducted in accordance with NCDENR Division of Waste Management, Inactive Hazardous Site Branch (IHSB) Section "Guidelines for Assessment and Cleanup" issued in August 2011 and PSI's Statement of Quality Assurance and Quality Control (QA/QC) which is presented in Appendix A. The soil samples were described and logged for lithologic, stratigraphic, structural, and physical properties.

Geologic interpretation of the soil sample collected yielded a subsurface lithology of clayey silty sands (residuum) near the topographic surface, with the clay content reducing with depth. Based on field observations of the soil samples the peizometric surface is approximately 8-feet below ground surface. Soil Borings Logs are provided in Appendix B.

6 REMEDIAL ASSESSMENT

Based on the soil and groundwater sample results from the Expanded Phase II ESA, PSI was authorized to further assess the vertical and horizontal extent of the soil impact along the former rail road spur, under the on-site soil stockpile, and around the two abandoned wastewater sumps. The remedial assessment activities were completed in two phases; the first phase consisted of advancing soil test borings to collect soil and groundwater samples in the area of the former rail road spur, the on-site soil stockpile, and the abandoned waste water sumps. The seconded phase consisted of the removal of impacted soil in three areas along the rail road spur and the removal of the on-site soil stockpile. PSI contracted Akers Environmental (Akers), of Taylorsville, North Carolina, for soil borings completion using a track mounted direct-push drilling rig (54DT Geoprobe®). The remedial contractor (Shamrock) was contracted by Flanders Corporation to provide remediation services (soil excavation activities). During assessment and remediation activities, PSI was on-site to supervise the contactors, direct the technical field activities, conduct soil and groundwater sampling, and document field conditions.

Eighteen (18) additional soil test borings were advanced at the site. Twelve (12) of the soil test borings (GP-RR-1 through GP-RR-12) were advanced along the former railroad spur located to the north of the building, four (4) of the soil test borings were advanced in the area of the soil stockpile (GP-SP-1 through GP-SP-4), and two (2) of the soil test borings (Sump-1 and Sump-2) were installed around the abandoned wastewater sumps. Continuous soil samples were collected along the entire length of each borehole using a Geoprobe® Macro-Core® Soil Sampler. The Macro-Core® sampling apparatus consists of a two-inch inside diameter (ID) by five-foot long stainless-steel hollow rod, which is lined with a disposable clear acetate liner. Soil selected for sampling is retained within the disposable liner, which can be removed from the sampling instrument for visual inspection of the soil column, sample collection, and/or field screening and analysis.

Soil and groundwater samples were submitted for chemical analysis to Con-Test Analytical Laboratory in East Longmeadow, Massachusetts. The soil samples were generally analyzed for the following:

- VOCs by EPA Method 8260,
- SVOCs by EPA Method 8270,
- Hexavalent chromium by EPA Method 6010,
- Priority pollutant metals by EPA Methods 6010/7470,
- TCLP priority pollutant metals, and
- TCLP hexavalent chromium by EPA Method 6010/7470.

The groundwater samples were analyzed for the following:

- VOCs by EPA Method 8260,
- SVOCs by EPA Method 8270,
- Hexavalent chromium by EPA Method 6010, and
- Priority pollutant metals by EPA Methods 6010/7470.

A copy of Con-Test's Analytical Laboratory Quality Assurance Manual is presented in **Appendix C**. A copy of the Laboratory Analytical Reports and Chain of Custody are provided in **Appendix D**. A copy of the Laboratory Analytical Reports from samples collected during the Expanded Phase II ESA are presented in **Appendix E**.

The soil samples with analytical results at or above the method detection limits (MDLs) are summarized in **Tables 2 through 7**. Soil sampling analytical maps displaying all soil boring locations with concentrations detected above the NCDENR-IHSB health based SRGs (industrial, residential, and/or protection to groundwater) are presented as **Figures 7 through 13**.

The following summaries for each area of concern are based on the NCDENR-IHSB preliminary health-based industrial and protection to groundwater soil remediation goals (SRGs) dated August 2011. The site has operated in an industrial setting since its original development in 1960. Similarly, the majority of the surrounding properties are developed for commercial or industrial use. Based on this information, the reference to the NCDENR IHSB Preliminary Industrial Health-Based SRGs to guide the soil assessment and remedial activities were applicable for the site.

6.1 Soil Sampling Results - Soil Test Boring

Former On-site Railroad Spur

As part of the Expanded Phase II ESA (May 2011), three (3) soil samples were collected in the area of the former railroad spur (GP-14, GP-15 and GP-16). The soil samples were analyzed for SVOCs and arsenic. The laboratory results indicated that the SVOC benzo(a)pyrene was detected at concentrations that exceeded the NCDENR-IHSB preliminary industrial health-based SRG at soil borings GP-14 and GP-15.

To further delineate the horizontal and vertical extent of soil impact along the former railroad spur, PSI advanced twelve (12) soil test borings (GP-RR-1 through GP-RR-12). Two (2) soil samples were collected per boring. The first soil sample was a composite sample consisting of soil collected from existing ground surface to 2-feet bgs and the second soil sample was a composite sample from soil collected between 6-feet and 8-feet bgs. Each of the soil test borings were

advanced to 8-feet bgs.

The laboratory results of the soil samples indicated that acetone, methylene chloride, and naphthalene were the only VOCs detected above MDLs. Methylene chloride was detected in all the soil sample while acetone was detected in two (2) soil samples analyzed (GP-RR-1-SS-1 and GP-RR-10-SS-1) and naphthalene was detected in one soil sample (GP-RR-7-SS-1). The reported concentrations of each of the VOCs detected are below the IHSB Preliminary Health-Based Industrial and Protection to Groundwater SRGs.

The laboratory results also indicated that twenty (20) SVOCs (acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, 2,4, dimethylphenol, fluoranthene, fluorine, indeno(1,2,3-cd)pyrene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene) were detected above MDLs. All or part of the listed SVOCs were detected in soil samples (GP-RR-1-SS-1, GP-RR-3-SS-1, GP-RR-5-SS-1, GP-RR-7-SS-1, GP-RR-9-SS-1, GP-RR-10-SS-1, GP-RR-11-SS-1, and GP-RR-12-SS-1). The reported concentrations of each of the SVOCs detected are below the IHSB Preliminary Health-Based Industrial SRGs in soil samples GP-RR-1-SS-1, GP-RR-3-SS-1, GP-RR-5-SS-1, GP-RR-9-SS-1, GP-RR-10-SS-1, GP-RR-11-SS-1, and GP-RR-12-SS-1. Whereas the reported concentration of SVOCs (benzo(a)anthracene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene) in soil sample GP-RR-7-SS-1, and benzo(a)pyrene in soil samples GP-RR-7-SS-1, GP-14, and GP-15 were above the NCDENR IHSB Preliminary Health-Based Industrial SRGs.

In addition to the soil samples being analyzed for VOCs and SVOCs, the soil samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that antimony, arsenic, chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc had concentrations above the laboratory method detection limit. Of the soil samples analyzed with metals concentrations above the MDL, none of the reported concentrations were above the IHSB Preliminary Health-Based Industrial SRGs. The laboratory results indicated that soil samples GP-RR-1-SS-2, GP-RR-3-SS-1, GP-RR-5-SS-2, GP-RR-7-SS-1, GP-RR-9-SS-2, GP-RR-11-SS-1, GP-RR-11-SS-2, GP-RR-12-SS-2, and GP-14, GP-15, and GP-16 had arsenic concentrations above the MDL however, none of the reported concentrations exceeded the IHSB Preliminary Health-Based Industrial SRGs or the Protection of Groundwater SRGs.

In addition the soil samples were also analyzed for TCLP metals. The laboratory

results for the TCLP analysis indicated that antimony and lead exceeded the North Carolina Administrative Code (NCAC) at 15A NCAC 2L.0202 Groundwater Quality Standards (North Carolina Groundwater Standards). TCLP antimony exceeded the groundwater standard in soil sample GP-RR-10-SS-1, and TCLP lead in all the soil samples except GP-9-SS-1 and GP-RR-11-SS-1. *It should be noted that the laboratory results of the groundwater samples collected along the former railroad spur as part of this Remedial Assessment/Soil Excavation Activities indicated that lead and antimony were not detected above the North Carolina Groundwater Standards.*

The results of these activities are summarized in **Tables 2 through 4**, and illustrated on **Figures 7 through 9**.

On-Site Soil Stockpile

As part of the Expanded Phase II ESA (May 2011), one (1) soil sample was collected in the area of the soil stockpile (GP-31). The soil sample was analyzed for VOCs, SVOCs and priority pollutant metals. The laboratory results indicated that the SVOCs benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene were detected at concentrations that exceeded the NCDENR-IHSB preliminary industrial health-based SRG.

PSI advanced four (4) additional soil test borings, GP-SP-1, GP-SP-2, GP-SP-3 and GP-SP-4 (herein referred to as SP-1 through SP-4) in various locations on the soil stockpile. Soil borings SP-1 through SP-4 were advanced to delineate the horizontal and vertical extent of soil impact underneath the soil stockpile. One (1) soil sample was collected from soil test borings SP-1, SP-3, and SP-4, and two (2) soil samples were collected from soil test boring SP-2. Each of the soil samples collected were composite samples consisting of soil collected from 2-foot intervals determined on visual classification of the soil during sampling activities. Each of the soil test borings were advanced through the on-site soil stockpile and terminated approximately 4-feet below the interface of the soil stockpile and coastal plain deposits. One additional soil test boring was installed approximately 15-feet south of the soil stockpile. This soil sample was collected to allow the evaluation of background concentrations of metals.

The laboratory results of the soil samples indicated that acetone and methylene chloride were the only VOCs detected above MDLs, as summarized in **Table 5**. Methylene chloride was detected in all the soil samples analyzed. Acetone was detected in all the soil samples analyzed except GP-SP-4-SS-1. The reported concentrations of each of the VOCs detected are below the IHSB Preliminary Health-Based Industrial, and Protection to Groundwater SRGs.

The laboratory results also indicated that eight (8) SVOCs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyreneand pyrene) were detected above MDLs. All or parts of the listed SVOCs were detected in soil sample GP-SP-2-SS-1 and GP-SP-1-SS-1. The reported concentrations of each of the SVOCs detected in the soil samples were below the IHSB Preliminary Health-Based Industrial SRGs. Whereas the reported concentrations of benzo(a)pyrene was above the NCDENR IHSB Preliminary Protection to Groundwater SRGs.

In addition to the soil samples being analyzed for VOCs and SVOCs, the soil samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that arsenic, beryllium, cadmium, chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc had concentration above the laboratory method detection limit, as summarized in **Table 6**. Of the soil samples analyzed only arsenic in soil sample GP-SP-3-SS-1 had concentration above the IHSB Preliminary Health-Based Industrial SRGs.

In addition to total metals, each of the soil samples was also analyzed for TCLP metals. The laboratory results for the TCLP analysis indicated that chromium and lead exceeded the North Carolina Groundwater Standard. TCLP chromium exceeded the groundwater standard in soil sample GP-SP-4-SS-1, and TCLP lead in all the soil samples (including the background sample) except GP-SP-2-SS-2. *It should be noted that the laboratory results of the groundwater samples collected at the soil stockpile indicated that lead was not detected above the North Carolina Groundwater Standards.*

The results of these activities are summarized in **Tables 5 through 7**, and illustrated on **Figures 10 and 11**.

Abandoned Wastewater Sumps 1 and 2

As part of the Expanded Phase II ESA (May 2011), three (3) soil samples were collected in the area of the former wastewater sumps (GP-4, GP-6 and GP-10). The soil samples were analyzed for one or more of the following VOCs, SVOCs, priority pollutant metals and TCLP metals. The laboratory results indicated that arsenic was detected at a concentration that exceeded the NCDENR-IHSB preliminary industrial health-based SRG at soil boring GP-4. Soil boring GP-4 is located at Sump-2. As part of the Sump-2 removal activities associated with the

To further delineate the horizontal and vertical extent of soil impact, PSI advanced one (1) additional soil test boring (Sump-1) in the area of the former wastewater

sumps. Two (2) soil samples were collected from soil test boring Sump-1 (Sump-1-SS-1 and Sump-1-SS-2). The first soil sample was a composite sample consisting of soil collected from existing ground surface to 2-feet bgs and the second soil sample was a composite sample from soil collected between 6-feet and 8-feet bgs. The soil test boring was advanced to 8-feet bgs. Since the laboratory results from the soil samples collected during the Expanded Phase II and UST Closure activities indicated that there were no VOCs or SVOCs were detected above the IHSB SRGs, the soil samples collected as part of the remedial assessment were analyzed for priority pollutant metals by EPA Methods 6010/7470, hexavalent chromium by EPA Method 6010, TCLP priority pollutant metals and TCLP hexavalent chromium by EPA Method 6010/7470.

The analytical results for soil samples Sump-1-SS-1 and Sump-1-SS-2 indicated that chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc had concentration above the MDLs; however, none of the soil samples had concentration above the IHSB Preliminary Health-Based Industrial SRGs.

In addition to total metals, each of the soil samples were also analyzed for TCLP metals. The laboratory results for the TCLP analysis indicated that antimony, cadmium and lead concentrations exceeded the North Carolina Groundwater Standard in soil sample Sump-1-SS-1 and lead and selenium concentrations exceeded the North Carolina Groundwater Standards in soil sample Sump-1-SS-2. *It should be noted that the laboratory results of the groundwater samples collected at Sump-1 as part of this Remedial Assessment/Soil Excavation Activities indicated that antimony, cadmium, selenium and lead were not detected above the North Carolina Groundwater Standards*

The results of these activities are summarized in **Tables 5 through 7**, and illustrated on **Figures 12 and 13**.

6.2 GROUNDWATER SAMPLING RESULTS

Based on the initial findings of the Expanded Phase II ESA, additional groundwater samples were collected along the former railroad spur and in the area of Sump-2 as part of the Remedial Assessment / Soil Excavation Activities. All the groundwater samples were collected at the termination of each soil test boring designated for groundwater sampling. Each groundwater sample was collected via a Geoprobe® water sampler, consisting of a 4-foot screened section deployed near the bottom of the boring. Groundwater was extracted from the Geoprobe® water sampler utilizing one-quarter inch diameter Teflon tubing equipped with a stainless steel check valve.

The Remedial Assessment/Soil Excavation Activities conducted by PSI included the

collection of six (6) groundwater samples (RR-2-GW, RR-4-GW, RR-6-GW, RR-8-GW, RR-10-GW, and RR-12-GW) along the former railroad spur, one two groundwater samples (Sump-1-GW and Sump-2-GW) collected from the wastewater sumps During the Expanded Phase II ESA (May 2011) conducted by PSI, one (1) groundwater sample (GP-14-GW) was collected along the former railroad spur, two (2) groundwater samples (GP-6 and GP-10) were collected in the area of the former waste-water sumps, and one groundwater sample (GP-31-GW) was collected under the soil stockpile. No Type II or Type III monitoring wells were installed as part of the Remedial Assessment/Soil Excavation Activities or the Expanded Phase II ESA.

Each of the groundwater samples collected were placed in laboratory-provided sample containers, preserved, and shipped under chain-of-custody to Con-Test Analytical Laboratory (a North Carolina certified laboratory) for analysis. Each of the groundwater samples was analyzed for the following:

- VOCs via EPA Method 8260,
- SVOCs by EPA Method 8070C,
- Hexavalent chromium by EPA Method 6010, and
- Priority pollutant metals using EPA Method 6010/6020/7470.

Groundwater analytical results of concentrations detected above the MDLs are summarized in **Tables 8 through 11**. Groundwater sampling result maps, which display the groundwater analytical results detected above the MDLs are presented as **Figures 14 through 20**.

Abandoned Railroad Spur

As part of the Expanded Phase II ESA (May 2011), one (1) groundwater sample was collected in the area of the railroad spur (GP-14-GW). The groundwater sample was collected from soil test borings GP-4 and analyzed for arsenic. The laboratory results indicated that arsenic was detected at the North Carolina Groundwater Standard of 10 parts per billion.

Twelve (12) additional soil borings (GP-RR-1 through GP-RR-12) were advanced along the former railroad spur as part of the Remedial Assessment/Soil Excavation Activities, groundwater samples were collected from six (6) of these borings (GP-RR-2, GP-RR-4, GP-RR-6, GP-R-8, GP-RR-10, and GP-RR-12).

The laboratory results of the groundwater samples indicated that acetone, 2-butanone (MEK), tert-Butyl Alcohol (TBA), chloromethane, methyl tert-butyl ether (MTBE), naphthalene, toluene, trichlorofluoromethane (Freon 11), 1,2,4-trimethylbenzene, m+p xylene, and o-xylene were the only VOCs detected above the MDLs. All or some of the previously listed VOCs were detected in the

groundwater samples collected from GP-RR-2, GP-RR-4, GP-RR-6, GP-RR-8, GP-RR-10, and GP-RR-12. The reported concentrations of each of the VOCs detected are below the North Carolina Groundwater Standards.

The laboratory results of the groundwater samples indicated that the SVOC diethylphthalate was detected above the laboratory method detection limit in the groundwater samples collected from soil test borings GP-RR-4, GP-RR-6, GP-RR-8, and GP-RR-10. The reported concentrations of diethylphthalate are below the North Carolina Groundwater Standards.

In addition to the groundwater samples being analyzed for VOCs and SVOCs, the groundwater samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that beryllium, cadmium, copper, lead, nickel, and zinc had concentrations above the laboratory method detection limit. All or some of the previously listed metals were detected in the groundwater samples collected from GP-RR-2, GP-RR-4, GP-RR-6, GP-RR-8, GP-RR-10, and GP-RR-12. The reported concentrations of each of the metals detected are below the North Carolina Groundwater Standards.

Although arsenic was detected at a concentration that met the North Carolina Drinking Water Standard for arsenic (10 parts per billion) as reported in the Expanded Phase II ESA (May 2011), six groundwater samples were collected as part of the Remedial Assessment and Soil Excavation and none of the samples exhibited concentrations of arsenic that exceeded the North Carolina Groundwater Standards.

These results of these groundwater activities in the area of the railroad spur are summarized in **Tables 8 and 9**, and illustrated on **Figures 14 and 16**.

Soil Stockpile

No additional groundwater samples were collected under the soil stockpile during the Remedial Assessment/Soil Excavation Activities. One groundwater sample was collected during the Expanded Phase II ESA (May 2011). The analytical results of the groundwater sample (GP-31-GW) collected during the Expanded Phase II ESA, indicated that groundwater was not impacted with VOCs and SVOCs above the North Carolina Groundwater Standards.

In addition to the groundwater sample being analyzed for VOCs and SVOCs, the groundwater sample was also analyzed for priority pollutant metals. The analytical results of the groundwater sample (GP-31-GW) indicated that arsenic, beryllium, chromium, copper, lead, nickel, and zinc had concentration above the laboratory

method detection limit. The reported concentrations of each of the metals detected are below the North Carolina Drinking Water Standards except for arsenic and chromium. Arsenic was detected at the estimated value of 10 J, which is equal to the North Carolina Groundwater Standard. Chromium was detected at a concentration of 78 parts per billion, which is greater than the North Carolina Groundwater standard of 10 parts per billion.

These results are summarized in **Tables 10 through 12**, and illustrated on **Figures 17 and 18.**

Former Wastewater Sumps

As part of the Expanded Phase II ESA (May 2011), two (2) groundwater samples were collected in the area of the former waste-water sumps (GP-6-GW and GP-10-GW). The groundwater samples were collected from soil test borings GP-6 and GP-10. The groundwater samples were analyzed for VOCs, SVOCs, and priority pollutant metals. The laboratory results indicated that twelve (12) VOCs, no SVOCs, and six (6) priority pollutant metals were detected above MDLs. None of the reported concentrations of VOCs exceeded the North Carolina Groundwater Standards, except arsenic.

Based on the results of the Expanded Phase II ESA, two (2) additional groundwater samples were collected in the area of the former wastewater sumps (Sump-1 and Sump-2) as part of the Remedial Assessment/Soil Excavation Activities. Since the analytical results from the Expanded Phase II reported no VOCs or SVOCs above regulatory action limits, the groundwater samples collected during the Remedial Assessment/Soil Excavation Activities were only analyzed for priority pollutant metals and hexavalent chromium.

The analytical results indicated that arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, and zinc had concentration above the MDLs. All or some of the previously listed metals were detected in the groundwater samples Sump-1-GW and Sump-2-GW. The reported concentrations of each of the metals detected are below the North Carolina Groundwater Standards except for the chromium, lead and thallium concentrations reported in the groundwater sample Sump-2-GW.

Although the laboratory results of the groundwater samples (GP-10 and GP-6) collected as part of the Expanded Phase II ESA (May 2011) indicated that arsenic was detected above the North Carolina Groundwater Standards, the groundwater results from the newly installed borings adjacent to these locations, Sump-1-GW and Sump-2-GW, respectively, reported concentrations of arsenic below the MDLs.

These results are summarized in **Tables 10 through 12**, and illustrated on **Figures 19 and 20**.

7 HYDROGEOLOGIC INVESTIGATION

Since no permanent monitoring wells were installed as part of this assessment, groundwater elevation was not calculated and slug test were not conducted; hence the horizontal hydraulic gradient, the aquifer's hydraulic conductivity, and velocity were not determined as part of this assessment. Based on the minimal groundwater impact present at the site, additional hydrogeologic investigation is not warranted at this time.

8 SOIL EXCAVATION ACTIVITIES

Based on soil analytical results from the Remedial Assessment/Soil Excavation Activities and The Expanded Phase II Environmental Assessments conducted at the subject property, PSI determined that soil along the railroad spur and the soil in the on-site soil stockpile was impacted above IHSB the Preliminary Health-Based Industrial SRGs. As noted earlier in Section 2.5 of this report the wastewater sumps were abandoned during the UST removal activities.

The soil analytical data from the Remedial Assessment/Soil Excavation Activities indicated that there was impacted soil in three (3) separate areas along the railroad spur (See Figure 21) and the on-site soil stockpile needed to be removed along with approximately 18-inches of residual soil under the stockpile. Following excavation activities, composite samples were collected to confirm the impacted soil had been removed. Five (5) composite soil samples were collected from each of the three (3) excavations in the area of the former railroad spur. One (1) and/or two (2) composite soil samples were collected from each of the sample areas within the soil stockpile footprint. Each of the composite samples collected were comprised of two (2) to four (4) aliquots. **Figures 22, 23, 24, and 26** shows the approximate locations where the aliquots were collected. The transportation manifest and weight tickets are provided in Appendix F.

The confirmatory soil samples were placed in laboratory provided containers, labeled, and placed in a shipping container with ice for delivery to a North Carolina certified laboratory under strict chain-of-custody protocol. The confirmatory soil samples were submitted for chemical analysis to Con-Test Analytical Laboratory in East Longmeadow, Massachusetts and analyzed for VOCs by EPA Method 8260, SVOCs by EPA Method 8270, priority pollutant metals by EPA Methods 6010/7470, hexavalent chromium by EPA Method 6010, and TCLP analysis for VOCs, SVOCs, priority pollutant metals and hexavalent chromium.

8.1 Former Railroad Spur

Impacted soil was removed in three (3) areas in the vicinity of soil test borings GP-14, GP-15, and GP-RR-7. Figure 21 indicates the approximate location and dimensions of each excavation area. The excavation in the area of GP-14 was approximately 10.5 feet by 11.5 feet by 3-feet deep. The excavation in the area of GP-15 was approximately 10 feet by 10 feet by 3-feet deep. The excavation in the area of GP-RR-7 was approximately 24 feet by 10 feet by 3-feet deep. Based on the weight tickets from the disposal facility, approximately 78.84 tons of impacted soil was removed from the excavations along the former railroad spur. The excavated soil was loaded on dump trucks and hauled to an approved off-site disposal facility (Sampson County Disposal in

Roseboro North Carolina).

Once excavation activities were completed in each area, PSI collected five (5) confirmatory soil samples from each excavation. One (1) composite soil sample was collected from each of the sidewalls and one (1) composite soil sample was collected from the floor. Each of the composite soil samples were comprised of two (2) to four (4) aliquots. The approximate location of the soil aliquots are depicted on **Figure 22 through Figure 24**. Laboratory results of confirmatory soil samples collected from each of the excavations are summarized in **Tables 12 through 14**.

Excavation Area GP-RR-7:

PSI collected five (5) confirmatory soil samples from the sidewalls and floor of the excavation. Four (4) confirmatory soil samples (one from each sidewall) were collected from each of the sidewalls (GP-RR-7-SW-1 through GP-RR-7-SW-4) and one (1) from the floor (GP-RR-7-FL-1) of the excavation. Approximate soil sampling locations are depicted on **Figure 22**.

The laboratory results of the confirmatory soil samples indicated that acetone and naphthalene were the only VOCs detected above MDLs. Acetone was detected in two of the sidewall samples (GP-RR-7-SW-2 and GP-RR-SW-3), while naphthalene was detected in soil samples GP-RR-7-SW-1, GP-RR-SW-2, and GP-RR-7-SS-4. The laboratory results also indicated that nineteen (19) SVOCs (acenaphthene, anthracene, benzo(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, carbazole, chrysene, dibenz(a,h)anthracene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene) were detected above MDLs. The listed SVOCs were detected in four (4) of the composite soil samples collected (GP-RR-7-SW-1, GP-RR-7-SW-2, GP-RR-7-SW-4, and GP-RR-7-FL-1). The reported concentrations for four of the detected SVOCs (benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene) are above the IHSB Preliminary Health-Based Industrial SRGs. The soil samples were also analyzed for TCLP VOCs and TCLP SVOCs. The laboratory results reported that no TCLP VOCs or TCLP SVOCs were detected above MDLs. **Figure 27** depicts VOCs and TCLP VOCs soil results and **Figure 28** depict the SVOCs and TCLP SVOCs soil results.

In addition to the soil samples being analyzed for VOCs and SVOCs, the soil samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc had concentrations above the MDLs. Of the metals with

concentrations reported above the MDLs none of the confirmatory soil samples had metals with concentrations above the IHSB Preliminary Health-Based Industrial SRGs. The laboratory results indicated that only soil sample GP-RR-7-SW-1 had hexavalent chromium above MDLs and the laboratory reported concentration below the IHSB Preliminary Industrial Health-Based SRG. In addition to total metals each of the soil samples were also analyzed for TCLP metals. The laboratory results for the TCLP analysis indicated that lead was detected above the MDLs in all five composite samples, but only exceeded the North Carolina Groundwater Standard in three of the composite soil samples (GP-RR-7-SW-1, GP-RR-7-SW-2, and GP-RR-7-SW-3). TCLP hexavalent chromium was detected in two of the composite soil samples (GP-RR-7-SW-1 and GP-RR-7-FL-1); however, neither of the reported concentrations exceeded the North Carolina Groundwater Standards. TCLP zinc was detected in two of the composite soil samples (GP-RR-7-SW-1, and GP-RR-7-SW-2) but neither of the reported concentration exceeded the groundwater standard. **Figure 29** depicts the total metals and TCLP metals soil results.

Excavation Area GP-15:

PSI collected five (5) confirmatory soil samples from the sidewalls and floor of the excavation. Four (4) confirmatory soil samples (one from each sidewall) were collected from each of the sidewalls (GP-15-SW-1 through GP-15-SW-4) and one (1) from the floor (GP-15-FL-1) of the excavation. Approximate soil sampling locations are depicted on Figure 23.

The laboratory results of the confirmatory soil samples indicated that acetone and methylene chloride were the only VOCs detected above MDLs. Acetone and methylene chloride were detected in one of the sidewall samples (GP-15-SW-3) at concentrations below the IHSB Preliminary Health-Based Industrial SRGs, and were not detected in any of the other confirmatory samples collected. The laboratory results also indicated that no SVOCs were detected above MDLs. The soil samples were also analyzed for TCLP VOCs and TCLP SVOCs. The laboratory results reported that no TCLP VOCs or TCLP SVOCs were detected above MDLs. **Figure 30** depicts VOCs and TCLP VOCs soil results and **Figure 31** depict the SVOCs and TCLP SVOCs soil results.

In addition to the soil samples being analyzed for VOCs and SVOCs, the soil samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc had concentrations above the laboratory method detection limit; however none of the confirmatory soil samples had metals with concentrations above the IHSB Preliminary Health-Based Industrial SRGs. The

laboratory results indicated that soil samples GP-15-SW-1 and GP-15-SW-2 had hexavalent chromium above MDLs. The hexavalent chromium concentrations were below the IHSB Preliminary Industrial Health-Based SRG. In addition to total metals, each of the soil samples was also analyzed for TCLP metals. The laboratory results for the TCLP analysis indicated that lead was reported at concentrations that exceeded the North Carolina Groundwater Standard in all five composite samples. Additionally, the laboratory reported that cadmium and nickel had concentrations that exceeded the North Carolina Groundwater Standards in the composite soil sample collected in GP-15-SW-2. **Figure 32** depicts the total metals and TCLP metals soil results.

Excavation Area GP-14:

PSI collected five (5) confirmatory soil samples from the sidewalls and floor of the excavation. Four (4) confirmatory soil samples (one from each sidewall) were collected from each of the sidewalls (GP-14-SW-1 through GP-14-SW-4) and one (1) from the floor (GP-14-FL-1) of the excavation. Approximate soil sampling locations are depicted on **Figure 24**.

The laboratory results of the confirmatory soil samples indicated that acetone, methylene chloride, and naphthalene were the only VOCs detected above MDLs. Acetone was detected in four of the sidewall samples (GP-14-SW-1 through GP-14-SW-4), while methylene chloride was detected in three sidewall soil samples (GP-14-SW-3, GP-14-SW-4 and GP-14-FL-1) and naphthalene was detected in only one sidewall sample (GP-14-SW-3). The reported concentrations of the detected VOCs are below the IHSB Preliminary Health-Based Industrial and Protection to Groundwater SRGs. The laboratory results also indicated that eleven (11) SVOCs (anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene) were detected above MDLs. The listed SVOCs were detected in one of the composite soil samples collected (GP-14-SW-3). The reported concentrations of the SVOC benzo(a)pyrene is above the IHSB Preliminary Health-Based Industrial SRGs. The reported concentrations for the SVOCs (benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene) are above the IHSB Preliminary Health-Based industrial and Protection to Groundwater SRGs. The soil samples were also analyzed for TCLP VOCs and TCLP SVOCs. The laboratory results reported that no TCLP VOCs or TCLP SVOCs were detected above MDLs. **Figure 33** depicts VOCs and TCLP VOCs soil results and **Figure 34** depict the SVOCs and TCLP SVOCs soil results.

In addition to the soil samples being analyzed for VOCs and SVOCs the soil

samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that chromium, copper, lead, mercury, nickel, and zinc had concentrations above the MDLs; however none of the confirmatory soil samples had metals with concentrations above the IHSB Preliminary Health-Based Industrial SRGs. In addition to total metals, each of the soil samples were also analyzed for TCLP metals. The laboratory results for the TCLP analysis indicated that lead was reported at concentrations that exceeded the North Carolina Groundwater Standards in all five composite samples. The groundwater analytical results for the groundwater sample collected at the rail road spur indicated the concentration lead is below the North Carolina Groundwater Standard. **Figure 35** depicts the total metals and TCLP metals soil results.

8.2 On-Site Soil Stockpile

On-Site Soil Stockpile

The soil stockpile was removed from the site based on soil samples collected during the remedial assessment activities and approximately 18-inches of residual soil under the soil stockpile was removed as impacted soil. Approximately 1202.36 tons of impacted soil and debris was removed. The excavated soil was loaded on dump trucks and hauled to an approved off-site disposal facility (Sampson County Disposal in Roseboro North Carolina).

After the impacted soil was removed, within the footprint of the soil stockpile the area of excavation was divided into eleven (11) sample areas (Area-1 through Area-11). The sample areas range from 177 square feet to 900 square feet in size. The approximate location and square footage of each sample area is depicted on **Figure 25**. Once excavation activities were completed in each area, PSI collected one (1) or two (2) confirmatory composite soil samples from each of the areas. The soil samples were collected from the floor of each area. Each of the composite soil samples was made-up of four (4) to five (5) aliquots. **Figure 26** shows the approximate locations of the soil aliquots within each of the soil sample areas.

PSI collected a total of 18 confirmatory soil samples in the footprint of the soil stockpile. One (1) confirmatory soil sample was collected from Areas-1, -2, -5 and -9 and two (2) soil samples were collected from Areas-3, -4, -6, -7, -8, -10, and -11. Laboratory results of confirmatory soil samples collected from each of the areas are summarized in **Tables 15 through 17**.

The laboratory results of the confirmatory soil samples indicated that acetone and methylene chloride were the only VOCs detected above MDLs. Acetone was detected in all the soil samples except soil samples Area-3-SS-1, Area-10-SS-2 and Area-10-SS-2 while methylene chloride was detected in all the soil samples

except Area-11-SS-2; however at concentrations below the IHSB Preliminary Health-Based Industrial and Protection to Groundwater SRGs. The laboratory results also indicated that eight (8) SVOCs (benzo(a)thracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene) were detected above MDLs. The listed SVOC benzo(a)pyrene was only detected in two of the soil samples collected (Area-8-SS-1 and Area-11-SS-2) at concentrations below the IHSB Preliminary Industrial Health-Based SRGs. Additonally, benzo(a)anthracene and benzo(b)fluoranthene were detected in soil sample Area-11-SS-2 at concentrations above the IHSB Preliminary Industrial Health-Based SRGs. However, the reported concentrations of each of the SVOCs detected are below the IHSB Preliminary Industrial Health-Based SRGs. The soil samples were also analyzed for VOC and SVOC TCLP. The laboratory results reported that no TCLP VOCs or TCLP SVOCs were detected above MDLs.

In addition to the soil samples being analyzed for VOCs and SVOCs, the soil samples were also analyzed for priority pollutant metals and hexavalent chromium. The analytical results indicated that antimony, arsenic, beryllium, chromium, hexavalent chromium, copper, lead, mercury, nickel, and zinc had concentrations above the laboratory method detection limit. Of the metals with concentrations reported above the MDLs. arsenic was the only metal with concentrations above the IHSB Preliminary Health-Based Industrial SRGs. The laboratory results indicated that the soil samples Area-5-SS-1, Area-6-SS-1, Area-6-SS-2, Area-8-SS-1, Area-8-SS-2, Area-9-SS-1, Area-10-S-2, Area-11-SS-1, and Area-11-SS-2 had arsenic concentrations above the IHSB Preliminary Health-Based Industrial SRG. The arsenic concentrations ranged from 1.6 ppm (Area-9-SS-1) to 3.5 ppm (Area-5-SS-1). The laboratory results also indicated that soil samples Area-2-SS-1, Area-4-SS-1, Area-4-SS-2, Area-7-SS-1 and Area-7-SS-2 had concentrations of antimony above the IHSB Protection to Groundwater SRG. In addition, the laboratory results indicate that the soil samples Area-10-SS-1 had concentrations of hexavalent chromium above the IHSB Protection of Groundwater SRG. In addition to total metals, each of the soil samples was also analyzed for TCLP metals. The laboratory results for the TCLP analysis indicated that chromium and lead exceeded the North Carolina Groundwater Standard. TCLP chromium exceeded the groundwater standard in soil samples Area-5-SS-1, Area-6-SS-1, and Arera-6-SS-2, and TCLP lead in soil samples Area-1-SS-1, Area-2-SS-2, Area-6-SS-1, and Area-6-SS-2. The groundwater analytical results for the groundwater sample collected under the soil stockpile indicated the concentration lead is below the North Carolina Groundwater Standard.

9 CONCLUSIONS

PSI has completed the Remedial Assessment and Soil Excavation activities at the Flanders/PrecisionAire Facility in Smithfield, Johnston County, North Carolina. The results of these activities are summarized below.

- The Phase I ESA conducted in February 2011 identified 10 on-site RECs and 2 off-site RECs. An Expanded Phase II ESA was completed in May 2011, and identified four areas of concern that required additional assessment and remedial activities. The four areas of concern included the non-registered USTs, the two wastewater sumps, the former railroad spur, and a soil stockpile.

- The on-site chlorinated solvent release is an active incident under the NCDENR, Division of Waste Management, and is not addressed in this report. This incident is currently being managed by the previous owners.

- PSI conducted the removal of the three USTs and abandoned the two wastewater sumps in June 2011. The results of the UST removals were documented in a UST Closure Report that was submitted to the UST Section in the NCDENR Regional Office in Fayetteville. On August 19, 2011, the UST Section NCDENR Region Office issued a "No Further Action Letter" for the closure of the USTs.

- Due to the close proximity of the USTs to the wastewater sumps, Sump-2 was removed during soil excavation activities associated with the UST soil removal. Sump-1 was abandoned in place due to the close proximity of underground utilities.

- Soil excavation and confirmation soil sampling activities were conducted in November 2011.

- The site has operated in an industrial setting since its original development in 1960. Similarly, the majority of the surrounding properties are developed for commercial or industrial use. Based on this information, the reference to the NCDENR IHSB Preliminary Industrial Health-Based SRGs to guide the soil assessment and remedial activities were applicable for the site. Groundwater results were compared to the North Carolina Groundwater Quality Standards.

- The soil contaminants of concern at the site include SVOCs, priority pollutant metals, hexavalent chromium, and TCLP metals.

Former Railroad Spur

- An estimated 78.74 tons of impacted soil was removed from three (3) areas (GP-RR-7, GP-RR-14 and GP-RR-15) at the former Railroad Spur and disposed of at the Sampson County Disposal Facility in Roseboro, North Carolina. Post confirmation composite soil samples were collected from the sidewalls and excavation floor from each of the areas and analyzed for the contaminants of concern. Although confirmatory soil samples indicate that there are residual SVOC and hexavalent soil impacts in the sidewalls of two of the excavations (GP-RR-7 and GP-RR-14) and TCLP metals analytical results indicate that lead, cadmium and nickel exceeded the North Carolina Groundwater Standards, six groundwater samples collected along the former railroad spur indicate that there are no VOCs, SVOCs, and/or metals detected above the North Carolina Drinking Water Standards. Additionally, the excavation has been backfilled with clean soil; therefore limiting the likelihood of human exposure to the residual impacts and the potential for leeching to the groundwater.

- Although arsenic was detected at a concentration that met the North Carolina Groundwater Quality Standard for arsenic (10 parts per billion) as reported in the Expanded Phase II ESA (May 2011), six groundwater samples were collected as part of the Remedial Assessment and Soil Excavation activities and none of the samples exhibited concentrations of arsenic that exceeded the North Carolina Groundwater Quality Standard.

- Based on the soil and groundwater analytical data obtained during the Remedial Assessment/Soil Excavation Activities, no additional assessment or remedial action is required in regards to the former railroad spur.

Soil Stockpile

- An estimated 1202.36 tons of impacted soil was removed from soil stockpile (including the soil 18-inches below the subsurface) and disposed of at the Sampson County Disposal Facility in Roseboro, North Carolina.

- Post confirmation composite soil samples were collected from the footprint of the stockpile and analyzed for the contaminants of concern. Although confirmatory soil samples indicate that arsenic is at concentrations above the IHSB Preliminary Health-Based Industrial SRGs, TCLP arsenic was below the North Carolina Groundwater Standard for all of the confirmation samples.

- TCLP metals analytical results of the confirmation samples reported lead and chromium at concentrations above the North Carolina Groundwater Quality

Standards. The results of a groundwater sample collected from beneath the soil stockpile during the Expanded Phase II ESA (May 2011) indicate that arsenic and chromium concentrations exceeded the North Carolina Groundwater Quality Standards. Since the groundwater sample was collected using a Geoprobe® groundwater sampler, the elevated concentrations of arsenic and chromium can be contributed to turbidity in the groundwater sample at the time of collection.

- Based on the removal of the impacted soil, which was the continuing source to groundwater contamination, no additional assessment or remedial action is required in regards to the area of the on-site soil stockpile.

Abandoned Wastewater Sumps

- As part of the UST closure activities both of the wastewater sumps (Sump-1 and Sump-2) were abandoned. Sump-1 was abandoned in place due to the close proximity of underground utilities and Sump-2 was removed during soil excavation activities associated with the two 10,000-gallon six oil USTs that were closed at the site.

- Based on the data collected during the Expanded Phase II ESA, no VOC or SVOC constituents were detected above the IHSB Preliminary Industrial Health-Based SRG in the soil samples analyzed within the area of Sump-1 and Sump-2.

- One soil sample collected during the Expanded Phase II ESA activities identified arsenic at a concentration above the IHSB Preliminary Health-Based Industrial SRGs at Sump-2. This soil was excavated and disposed off-site during the removal activities at Sump-2. Although arsenic was detected at a concentration above the North Carolina Groundwater Quality Standard for arsenic in the Expanded Phase II ESA (May 2011), a groundwater sample collected as part of the Remedial Assessment and Soil Excavation activities (July 2011) exhibited a concentration of arsenic that was below the North Carolina Groundwater Quality Standard.

- No soil samples collected during the Expanded Phase II ESA or during the Remedial Assessment and Soil Excavation activities had priority pollutant metals that were detected above the IHSB Preliminary Industrial Health-Based SRG at Sump-1. Although there were few metal TCLP exceedances, the groundwater sample collected as part of the Remedial Assessment and Soil Excavation activities (July 2011) reported no priority pollutant metals above the applicable North Carolina Groundwater Quality Standards.

- Based on the soil and groundwater analytical data obtained during the Expanded

Phase II ESA and the Remedial Assessment and Soil Excavation Activities, no additional assessment or remedial action is required in regards to the wastewater sumps.

10 RECOMMENDATIONS

Based on the conclusions of this Remedial Assessment and Soil Excavation Activities Report, PSI recommends that NCDENR IHSB issues a No Further Action Letter.

11 REFERENCES

Brown, P. M. and others, 1985, Geologic Map of North Carolina, North Carolina Geological Survey, Scale 1:500,000.

Tables

Table 1: Historical Ownership Table
Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Year	Property Usage	Owner/User	Address	Wells	Other receptors (i.e., basements, underground utilities)
Circa 1959	Wooded, undeveloped land	Unknown	None	Unknown	Unknown
1959 - 1990	Developed for industrial use	Field Crest Mills	2121 Wal-Pat Road	None	Unknown
1990 - 1997	Warehousing	Dekko	2121 Wal-Pat Road	None	Unknown
1997 - Current	Light Industrial	Flanders Corporation	2121-A Wal-Pat Road	None	Draniage Ditch along the western and southern property boundary

Table 2: Rail Spur Soil Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8260C - VOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs
Contaminant of Concern				Acetone	Methylene Chloride	Naphthalene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)																						
GP-RR-1	GP-RR-1--SS-1-0'-2'	7/7/2011	0' - 2'	0.0071J	0.0049J	<0.00013	<0.093	<0.093	<0.093	<0.10	<0.10	<0.081	<0.12	<0.093	<0.093	<0.081	<0.093	<0.081	0.12J	<0.10	<0.081	<0.12	<0.12	<0.081	<0.093	<0.12
GP-RR-1	GP-RR-1-SS-2-6'-8'	7/7/2011	6' - 8'	<0.0062	0.0051J	<0.00013	<0.092	<0.092	<0.092	<0.10	<0.10	<0.081	<0.12	<0.092	<0.092	<0.081	<0.092	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.092	<0.12
GP-RR-2	GP-RR-2-SS-1-0'-2'	7/6/2011	0' - 2'	<0.0056	0.00072J	<0.00012	<0.089	<0.089	<0.089	<0.10	<0.10	<0.078	<0.11	<0.089	<0.089	<0.078	<0.089	<0.078	<0.078	<0.10	<0.078	<0.11	<0.11	<0.078	<0.089	<0.11
GP-RR-2	GP-RR-2-SS-2-6'-8'	7/6/2011	6' - 8'	<0.0070	0.0012J	<0.00015	<0.099	<0.099	<0.099	<0.11	<0.11	<0.086	<0.12	<0.099	<0.099	<0.086	<0.099	<0.086	<0.086	<0.11	<0.086	<0.12	<0.12	<0.086	<0.099	<0.12
GP-RR-3	GP-RR-3-SS-1-0'-2'	7/7/2011	0' - 2'	<0.0060	0.0048J	<0.00013	<0.089	<0.089	<0.089	<0.10	<0.10	<0.078	<0.11	<0.089	<0.089	<0.078	<0.089	<0.078	0.082J	<0.10	<0.078	<0.11	<0.11	<0.078	<0.089	<0.11
GP-RR-3	GP-RR-3-SS-2-6'-8'	7/7/2011	6' - 8'	<0.0068	0.0054J	<0.00015	<0.093	<0.093	<0.093	<0.10	<0.10	<0.081	<0.12	<0.093	<0.093	<0.081	<0.093	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.093	<0.12
GP-RR-4	GP-RR-4-SS-1-0'-2'	7/6/2011	0' - 2'	<0.0061	0.0014J	<0.00013	<0.088	<0.088	<0.088	<0.099	<0.099	<0.077	<0.11	<0.088	<0.088	<0.077	<0.088	<0.077	<0.077	<0.099	<0.077	<0.11	<0.11	<0.077	<0.088	<0.11
GP-RR-4	GP-RR-4-SS-2-6'-8'	7/6/2011	6' - 8'	<0.0062	0.00086J	<0.00013	<0.090	<0.090	<0.090	<0.10	<0.10	<0.079	<0.11	<0.090	<0.090	<0.079	<0.090	<0.079	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.090	<0.11
GP-RR-5	GP-RR-5-SS-1-0'-2'	7/7/2011	0' - 2'	<0.0062	0.0039J	<0.00014	<0.088	<0.088	<0.088	<0.099	<0.099	<0.077	<0.11	<0.088	<0.088	<0.077	<0.088	<0.077	0.10J	<0.099	<0.077	<0.11	<0.11	<0.077	<0.088	0.14J
GP-RR-5	GP-RR-5-SS-2-6'-8'	7/7/2011	6' - 8'	<0.0067	0.0038J	<0.00015	<0.094	<0.094	<0.094	<0.11	<0.11	<0.082	<0.12	<0.094	<0.094	<0.082	<0.094	<0.082	<0.082	<0.11	<0.082	<0.12	<0.12	<0.082	<0.094	<0.12
GP-RR-6	GP-RR-6-SS-1-0'-2'	7/6/2011	0' - 2'	<0.0068	0.0016J	<0.00015	<0.084	<0.084	<0.084	<0.095	<0.095	<0.074	<0.11	<0.084	<0.084	<0.074	<0.084	<0.074	<0.074	<0.095	<0.074	<0.11	<0.11	<0.074	<0.084	<0.11
GP-RR-6	GP-RR-6-SS-2-6'-8'	7/6/2011	6' - 8'	<0.0062	0.00097J	<0.00013	<0.091	<0.091	<0.091	<0.10	<0.10	<0.080	<0.11	<0.091	<0.091	<0.080	<0.091	<0.080	<0.080	<0.10	<0.080	<0.11	<0.11	<0.080	<0.091	<0.11
GP-RR-7	GP-RR-7--SS-1-0'-2'	7/7/2011	0' - 2'	0.0073J	0.0035J	0.011	**26**	29	**33**	**23**	**28**	7.8	**11**	**11**	**31**	**3.6**	**13**	0.48J	67	23	**15**	**4.4**	**6.1**	**6.8**	**80**	56
GP-RR-7	GP-RR-7-SS-2-6'-8'	7/7/2011	6' - 8'	<0.0070	0.0025J	<0.00015	<0.095	<0.095	<0.095	<0.11	<0.11	<0.084	<0.12	<0.095	<0.095	<0.084	<0.095	<0.084	<0.084	<0.11	<0.084	<0.12	<0.12	<0.084	<0.095	<0.12
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				12,000	11	3.6	680	3,400	0.15	0.02	0.15	NE	1.5	NE	15	0.015	16	240	460	460	0.15	22	62	3.6	NE	340
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				100,000	53	18	6,600	34,000	21	0.21	2.1	NE	21	NE	210	0.21	170	2400	4400	4400	2.1	99	370	18	NE	3400
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				24	0.023	0.21	8.4	660	0.18	0.059	0.60	7,800	5.9	0.37	18	0.19	5.2	1.4	330	56	2	0.055	1.6	0.21	68	220

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs (Residential PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs (Industrial PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs and the Protection of Groundwater SRGs

Table 2: Rail Spur Soil Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8260C - VOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs
Contaminant of Concern				Acetone	Methylene Chloride	Naphthalene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)																						
GP-RR-8	GP-RR-8-SS-1-0'-2'	7/6/2011	0' - 2'	<0.0061	0.00089J	<0.00013	<0.092	<0.092	<0.092	<0.10	<0.10	<0.080	<0.11	<0.092	<0.092	<0.080	<0.092	<0.080	<0.080	<0.10	<0.080	<0.11	<0.11	<0.080	<0.092	<0.11
GP-RR-8	GP-RR-8-SS-2-6'-8'	7/6/2011	6' - 8'	<0.0070	0.00098J	<0.00015	<0.093	<0.093	<0.093	<0.10	<0.10	<0.081	<0.12	<0.093	<0.093	<0.081	<0.093	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.093	<0.12
GP-RR-9	GP-RR-9-SS-1-0'-2'	7/7/2011	0' - 2'	<0.0064	0.0039J	<0.00014	<0.090	0.18J	**0.33**	**0.19J**	**0.23**	0.14J	0.12J	<0.090	0.32	<0.079	<0.090	<0.079	0.54	<0.10	**0.16J**	<0.11	<0.11	<0.079	0.53	0.47
GP-RR-9	GP-RR-9-SS-2-6'-8'	7/7/2011	6' - 8'	<0.0061	0.0033J	<0.00013	<0.088	<0.088	<0.088	<0.10	<0.10	<0.077	<0.11	<0.088	<0.088	<0.077	<0.088	<0.077	<0.077	<0.10	<0.077	<0.11	<0.11	<0.077	<0.088	<0.11
GP-RR-10	GP-RR-10-SS-1-0'-2'	7/6/2011	0' - 2'	0.0057J	0.00067J	<0.00011	<0.088	<0.088	<0.088	<0.099	<0.099	<0.077	<0.11	<0.088	<0.088	<0.077	<0.088	<0.077	0.23	<0.099	<0.077	<0.11	<0.11	<0.077	<0.088	<0.11
GP-RR-10	GP-RR-10-SS-2-6'-8'	7/6/2011	6' - 8'	<0.0060	0.00089J	<0.00013	<0.092	<0.092	<0.092	<0.10	<0.10	<0.081	<0.12	<0.092	<0.092	<0.081	<0.092	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.092	<0.12
GP-RR-11	GP-RR-11-SS-1-0'-2'	7/7/2011	0' - 2'	0.0097J	0.0036J	<0.0015	<0.090	<0.090	0.13J	<0.10	0.12J	<0.079	<0.11	<0.090	0.13J	<0.079	<0.090	<0.079	0.20	<0.10	<0.079	<0.11	<0.11	<0.079	0.14J	0.22
GP-RR-11	GP-RR-11-SS-2-6'-8'	7/7/2011	6' - 8'	<0.0066	0.0036J	<0.00014	<0.090	<0.090	<0.090	<0.10	<0.10	<0.079	<0.11	<0.090	<0.090	<0.079	<0.090	<0.079	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.090	<0.11
GP-RR-12	GP-RR-12-SS-1-0'-2'	7/6/2011	0' - 2'	<0.0057	0.0013J	<0.00012	<0.091	<0.091	<0.091	<0.10	<0.10	<0.080	<0.11	<0.091	<0.091	<0.080	<0.091	<0.080	0.21	<0.10	<0.080	<0.11	<0.11	<0.080	<0.091	<0.11
GP-RR-12	GP-RR-12-SS-2-6'-8'	7/6/2011	6' - 8'	<0.0065	0.0014J	<0.00014	<0.091	<0.091	<0.091	<0.10	<0.10	<0.080	<0.11	<0.091	<0.091	<0.080	<0.091	<0.080	<0.080	<0.10	<0.080	<0.11	<0.11	<0.080	<0.091	<0.11
GP-14	GP-14-SS	3/22/11	0 - 2	NAF	NAF	NAF	<0.086	0.13J	**1.10**	**0.40**	**1.20**	0.19	0.46	NAF	1.70	**0.15J**	NAF	NAF	1.4	<0.097	**0.36**	NAF	NAF	<0.075	<0.086	1.9
GP-15	GP-15-SS	3/22/11	0 - 2	NAF	NAF	NAF	0.10J	0.18J	**0.57**	**0.50**	**0.69**	0.46	0.26	NAF	0.64	**0.18**	NAF	NAF	1.1	<0.097	**0.57**	NAF	NAF	<0.076	0.80	1.1
GP-16	GP-16-SS	3/22/11	0 - 2	NAF	NAF	NAF	<0.085	<0.085	<0.085	<0.096	0.099J	<0.075	<0.11	NAF	0.094J	<0.075	NAF	NAF	0.16	<0.096	<0.075	NAF	NAF	<0.075	0.12J	0.17J
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				12,000	11	3.6	680	3,400	0.15	0.02	0.15	NE	1.5	NE	15	0.015	16	240	460	460	0.15	22	62	3.6	NE	340
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				100,000	53	18	6,600	34,000	21	0.21	2.1	NE	21	NE	210	0.21	170	2400	4400	4400	2.1	99	370	18	NE	3400
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				24	0.023	0.21	8.4	660	0.18	0.059	0.60	7,800	5.9	0.37	18	0.19	5.2	1.4	330	56	2	0.055	1.6	0.21	68	220

NOTES:

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs (Residential PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs (Industrial PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs and the Protection of Groundwater SRGs

Table 3: Rail Spur Soil Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	Sample ID	Date Collected (m/dd/yy)	Sample Depth (ft BGS)														
GP-RR-1	GP-RR-1--SS-1-0'-2'	7/7/2011	0' - 2'	**3.3**	<0.91	<0.032	<0.26	4.3	<0.55	2.0	3.7	0.021J	1.2	<0.77	<0.24	<1.3	7.6
GP-RR-1	GP-RR-1-SS-2-6'-8'	7/7/2011	6' - 8'	<2.2	**1.2J**	<0.031	<0.25	5.3	**2.1**	4.0	7.6	<0.010	2.2	<0.75	<0.23	<1.3	5.9
GP-RR-2	GP-RR-2-SS-1-0'-2'	7/6/2011	0' - 2'	<2.0	<0.80	<0.028	<0.23	5.8	**0.63J**	1.7	4.7	0.071	1.1	<0.68	<0.21	<1.2	7.5
GP-RR-2	GP-RR-2-SS-2-6'-8'	7/6/2011	6' - 8'	<2.1	<0.85	<0.030	<0.24	7.5	<1.2	4.9	7.1	<0.011	3.1	<0.72	<0.59	<1.2	8.0
GP-RR-3	GP-RR-3-SS-1-0'-2'	7/7/2011	0' - 2'	<2.0	**0.89J**	<0.028	<0.23	4.2	<0.51	1.6	3.6	0.024J	0.93	<0.69	<0.21	<1.2	5.1
GP-RR-3	GP-RR-3-SS-2-6'-8'	7/7/2011	6' - 8'	<2.2	<0.87	<0.031	<0.25	4.0	<0.55	2.9	5.1	0.011J	1.9	<0.74	<0.23	<1.3	4.5
GP-RR-4	GP-RR-4-SS-1-0'-2'	7/6/2011	0' - 2'	<1.9	<0.76	<0.027	<0.22	6.6	**0.64J**	2.2	5.7	0.039	1.1	<0.65	<0.20	<1.1	11
GP-RR-4	GP-RR-4-SS-2-6'-8'	7/6/2011	6' - 8'	<1.9	<0.76	<0.027	<0.22	6.4	<1.1	2.8	6.8	0.016J	2.2	<0.65	<0.20	<1.1	6.6
GP-RR-5	GP-RR-5-SS-1-0'-2'	7/7/2011	0' - 2'	<2.1	<0.82	<0.029	<0.24	5.2	<0.21	2.1	4.9	0.023J	1.1	<0.70	<0.22	<1.2	8.8
GP-RR-5	GP-RR-5-SS-2-6'-8'	7/7/2011	6' - 8'	<2.0	**0.97J**	<0.029	<0.24	9.8	<0.22	4.2	8.2	0.053	2.8	<0.70	<0.22	<1.2	5.1
GP-RR-6	GP-RR-6-SS-1-0'-2'	7/6/2011	0' - 2'	<1.8	<0.72	<0.025	<0.21	3.3	**1.2J**	1.2	3.3	0.027	0.69	<0.61	<0.19	<1.1	7.0
GP-RR-6	GP-RR-6-SS-2-6'-8'	7/6/2011	6' - 8'	<2.1	<0.84	<0.030	<0.24	6.6	**1.3J**	2.4	5.7	<0.010	2.1	<0.72	<0.22	<1.2	5.8
GP-RR-7	GP-RR-7-SS-1-0'-2'	7/7/2011	0' - 2'	<2.2	**1.0J**	<0.031	<0.25	7.5	<0.21	2.3	6.2	0.075	1.6	<0.74	<0.23	<1.3	5.3
GP-RR-7	GP-RR-7-SS-2-6'-8'	7/7/2011	6' - 8'	<2.3	<0.91	<0.032	<0.26	11	<0.57	4.7	8.7	0.013J	2.7	<0.78	<0.24	<1.3	6.2
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				6.2	0.39	32	14	24,000	0.29	620	400	2.0	300	78	78	1.0	4,600
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				82	1.6	400	160	100,000	5.6	8,200	800	3.1	4000	1000	1000	2.0	62,000
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				0.9	5.8	63	3	360,000	3.8	700	270	1.0	130	2.1	3.4	0.28	1,200

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
Method Detection Limits are above the NCDENR-IHSB Preliminary **Residential** Health-Based SRGs, and/or the **Protection of Groundwater** SRGs

Table 3: Rail Spur Soil Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-RR-8	GP-RR-8-SS-1-0'-2'	7/6/2011	0' - 2'	<2.1	<0.83	<0.029	<0.24	14	**1.9**	3.3	8.8	0.062	2.4	<0.71	<0.22	<1.2	7.7
GP-RR-8	GP-RR-8-SS-2-6'-8'	7/6/2011	6' - 8'	<2.1	<0.83	<0.029	<0.24	10	**1.3J**	3.5	10	0.016J	2.7	<0.70	<0.22	<1.2	7.1
GP-RR-9	GP-RR-9-SS-1-0'-2'	7/7/2011	0' - 2'	<2.0	<0.80	<0.028	<0.23	7.8	<0.53	1.7	5.9	0.073	1.8	<0.68	<0.21	<1.2	4.7
GP-RR-9	GP-RR-9-SS-2-6'-8'	7/7/2011	6' - 8'	<1.9	0.92J	<0.027	<0.22	8.3	<0.52	3.8	8.0	0.015J	2.6	<0.65	<0.20	<1.1	4.9
GP-RR-10	GP-RR-10-SS-1-0'-2'	7/6/2011	0' - 2'	<1.9	<0.76	<0.027	<0.22	7.8	<1.1	3.5	8.9	0.061	1.9	<0.65	<0.20	<1.1	11
GP-RR-10	GP-RR-10-SS-2-6'-8'	7/6/2011	6' - 8'	<2.0	<0.78	<0.027	<0.23	8.9	<1.1	3.9	7.8	0.013	3.1	<0.67	<0.21	<1.2	7.6
GP-RR-11	GP-RR-11-SS-1-0'-2'	7/7/2011	0' - 2'	<2.1	1.2J	<0.029	<0.24	7.2	<0.52	2.0	6.7	0.057	1.7	<0.71	<0.22	<1.2	5.7
GP-RR-11	GP-RR-11-SS-2-6'-8'	7/7/2011	6' - 8'	<2.0	1.2J	<0.029	<0.24	5.3	0.26J	4.0	6.5	0.022J	2.1	<0.70	<0.22	<1.2	4.7
GP-RR-12	GP-RR-12-SS-1-0'-2'	7/6/2011	0' - 2'	<2.1	<0.82	<0.029	<0.24	5.5	<1.1	1.5	4.5	0.034	0.92	<0.70	<0.22	<1.2	9.5
GP-RR-12	GP-RR-12-SS-2-6'-8'	7/6/2011	6' - 8'	<2.1	<0.85	<0.030	<0.24	6.8	<0.53	2.9	6.2	<0.0097	1.4	<0.72	<0.22	<1.2	5.4
	BackGround	7/8/2011	1' - 3'	<2.0	0.84J	<0.028	<0.23	23	<0.55	6.7	11	0.055	2.9	<0.69	<0.21	<1.2	8.8
GP-14	GP-14-SS	3/22/11	0 - 2	NAF	0.65J	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-15	GP-15-SS	3/22/11	0 - 2	NAF	0.58J	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-16	GP-16-SS	3/22/11	0 - 2	NAF	0.97J	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				6.2	0.39	32	14	24,000	0.29	620	400	2.0	300	78	78	0.16	4,600
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				82	1.6	400	160	100,000	5.6	8,200	800	3.1	4000	1000	1000	2.0	62,000
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				0.9	5.8	63	3	360,000	3.8	700	270	1.0	130	2.1	3.4	0.28	1,200

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
Method Detection Limits are above the NCDENR-IHSB Preliminary Residential Health-Based SRGs, and/or the Protection of Groundwater SRGs

Table 4: Rail Spur Soil Analytical Data Summary (TCLP Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-RR-1	GP-RR-1--SS-1-0'-2'	7/7/2011	0' - 2'	<30	<8.6	<1	<1.8	4.5J	<2.4	<5.0	**17**	0.04J	<1.7	<16	<4	<20	96
GP-RR-1	GP-RR-1-SS-2-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	4.6J	5.6	<5.0	**65**	<0.04	<1.7	<16	<4	<20	45
GP-RR-2	GP-RR-2-SS-1-0'-2'	7/6/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**79**	<0.04	<1.7	<16	<4	<20	17J
GP-RR-2	GP-RR-2-SS-2-6'-8'	7/6/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**21**	<0.04	<1.7	<16	<4	<20	74
GP-RR-3	GP-RR-3-SS-1-0'-2'	7/7/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**20**	<0.04	<1.7	<16	<4	<20	59
GP-RR-3	GP-RR-3-SS-2-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	5.2J	<2.4	<5.0	**120**	<0.04	<1.7	<16	<4	<20	38
GP-RR-4	GP-RR-4-SS-1-0'-2'	7/6/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**22**	<0.04	<1.7	<16	<4	<20	74
GP-RR-4	GP-RR-4-SS-2-6'-8'	7/6/2011	6' - 8'	<30	<8.6	<1	<1.8	3.6J	<2.4	<5.0	**95**	<0.04	<1.7	<16	<4	<20	17J
GP-RR-5	GP-RR-5-SS-1-0'-2'	7/7/2011	0' - 2'	<30	<8.6	<1	<1.8	3.4J	<2.4	<5.0	**430**	<0.04	<1.7	<16	<4	<20	68
GP-RR-5	GP-RR-5-SS-2-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**110**	<0.04	<1.7	<16	<4	<20	41
GP-RR-6	GP-RR-6-SS-1-0'-2'	7/6/2011	0' - 2'	<30	<8.6	<1	<1.8	6.6J	<2.4	<5.0	**21**	<0.04	<1.7	<16	<4	<20	61
GP-RR-6	GP-RR-6-SS-2-6'-8'	7/6/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**91**	<0.04	<1.7	<16	<4	<20	17J
GP-RR-7	GP-RR-7--SS-1-0'-2'	7/7/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**18**	<0.04	<1.7	<16	<4	<20	42
GP-RR-7	GP-RR-7-SS-2-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5.0	**110**	<0.04	<1.7	<16	<4	<20	31
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				1	10	4	2	10	10	1,000	15	1	100	20	20	0.20	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. TCLP = Toxicity Characteristic Leaching Procedure
4. < = less than the stated method detection limit
5. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
6. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 4: Rail Spur Soil Analytical Data Summary (TCLP Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-RR-8	GP-RR-8-SS-1-0'-2'	7/6/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**50**	<0.04	<1.7	19J	<4	<20	20
GP-RR-8	GP-RR-8-SS-2-6'-8'	7/6/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**180**	<0.04	<1.7	<16	<4	<20	16J
GP-RR-9	GP-RR-9-SS-1-0'-2'	7/7/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	13	<0.04	<1.7	<16	6.3	<20	41
GP-RR-9	GP-RR-9-SS-2-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	3.8J	<2.4	<5	**140**	<0.04	<1.7	<16	<4	<20	30
GP-RR-10	GP-RR-10-SS-1-0'-2'	7/6/2011	0' - 2'	**46J**	<8.6	<1	<1.8	<3.4	<2.4	<5	**27**	<0.04	<1.7	<16	<4	<20	59
GP-RR-10	GP-RR-10-SS-2-6'-8'	7/6/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**90**	<0.04	<1.7	<16	<4	<20	21
GP-RR-11	GP-RR-11-SS-1-0'-2'	7/7/2011	0' - 2'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	12	<0.04	<1.7	<16	<4	<20	42
GP-RR-11	GP-RR-11-SS-2-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**72**	<0.04	<1.7	<16	<4	<20	31
GP-RR-12	GP-RR-12-SS-1-0'-2'	7/6/2011	0' - 2'	<30	<8.6	<1	<1.8	9.1J	<2.4	<5	**28**	<0.04	<1.7	17J	<4	<20	63
GP-RR-12	GP-RR-12-SS-2-6'-8'	7/6/2011	6' - 8'	<30	<8.6	<1	<1.8	<3.4	<2.4	9.4J	**66**	<0.04	<1.7	<16	<4	<20	16J
	BackGround	7/8/2011	1' - 3'	<30	<8.6	<1	<1.8	6.3J	<2.4	7.7J	**67**	<0.04	<1.7	<16	<4	<20	48
GP-14	GP-14-SS	3/22/11	0 - 2	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-15	GP-15-SS	3/22/11	0 - 2	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-16	GP-16-SS	3/22/11	0 - 2	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				1	10	4	2	10	10	1,000	15	1	100	20	20	0.20	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. TCLP = Toxicity Characteristic Leaching Procedure
4. < = less than the stated method detection limit
5. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
6. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 5: Stockpile and Wastewater Sumps - Soil Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs
Contaminant of Concern				Acetone	Methylene Chloride	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)																
GP-SP-1	GP-SP-1-SS-1-6'-8'	7/7/2011	6' - 8'	0.0078J	0.0036J	<0.098	0.10J	<0.11	<0.11	<0.098	<0.098	<0.086	<0.098	0.13J	<0.11	<0.086	<0.086	<0.098	0.14J
GP-SP-2	GP-SP-2-SS-1-5.5'-7.5'	7/7/2011	5.5' - 7.5	0.010J	0.0031J	<0.090	**0.17J**	**0.14J**	**0.17J**	<0.090	0.16J	<0.079	<0.090	0.28	<0.10	0.087J	<0.079	<0.090	0.26
GP-SP-2	GP-SP-2-SS-2, 10.3'-12'	7/7/2011	10.3' - 12'	0.010J	0.0031J	<0.099	<0.099	<0.11	<0.11	<0.099	<0.099	<0.087	<0.099	<0.087	<0.11	<0.087	<0.087	<0.099	<0.12
GP-SP-3	GP-SP-3-SS-1-4'-6'	7/7/2011	4' - 6'	0.0081J	0.0038J	<0.094	<0.094	<0.11	<0.11	<0.094	<0.094	<0.082	<0.094	<0.082	<0.11	<0.082	<0.082	<0.094	<0.12
GP-SP-4	GP-SP-4-SS-1-5'-7'	7/7/2011	5' - 7'	<0.0064	0.0032J	<0.089	<0.089	<0.10	<0.10	<0.089	<0.089	<0.078	<0.089	<0.078	<0.10	<0.078	<0.078	<0.089	<0.11
GP-31	GP-31-SS	3/23/2011	0 '- 4	0.011J	0.0019J	0.44	**1.7**	**1.7**	**2.3**	**0.41**	2.0	**0.27**	0.23J	3.9	0.28	**1.1**	0.092J	3.9	3.8
GP-4	GP-4-SS	3/23/2011	2' - 4'	<0.011	0.0024J	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-6	GP-6-SS	3/23/2011	2' - 4'	<0.0066	0.0015J	<0.091	<0.091	<0.10	<0.10	<0.091	<0.091	<0.079	<0.091	<0.079	<0.10	<0.079	<0.079	<0.091	<0.11
GP-10	GP-10-SS	3/23/2011	2' - 4'	<0.013	0.0030J	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				12,000	11	3,400	0.15	0.02	0.15	NE	15	0.015	16	460	460	0.15	3.6	NE	340
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				100,000	53	34,000	21	0.21	2.1	NE	210	0.21	170	4400	4400	2.1	18	NE	3400
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				24	0.023	660	0.18	0.059	0.60	0.37	18	0.19	5.2	330	56	2	0.21	68	220

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs (Residential PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs (Industrial PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs and the Protection to Groundwater SRGs

Table 6: Stockpile and Wastewater Sumps - Soil Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-SP-1	GP-SP-1--SS-1-6'-8'	7/7/2011	6' - 8'	<2.1	<0.83	<0.029	<0.24	12	0.28J	6.1	6.9	0.017J	2.3	<0.70	<0.22	<1.2	9.3
GP-SP-2	GP-SP-2-SS-1-5.5'-7.5'	7/7/2011	5.5' - 7.5	<2.0	<0.81	<0.029	<0.23	5.4	<0.21	3.8	5.3	<0.011J	2.1	<0.69	<0.21	<1.2	26
GP-SP-2	GP-SP-2-SS-2, 10.3'-12'	7/7/2011	10.3' - 12'	<2.1	<0.84	0.23J	<0.24	15	<0.23	13	7.3	<0.011	1.6	<0.71	<0.22	<1.2	9.5
GP-SP-3	GP-SP-3-SS-1-4'-6'	7/7/2011	4' - 6'	<2.1	**9.3**	<0.029	<0.24	16	<0.22	7.5	7.4	0.014J	2.3	<0.71	0.22	<1.2	10.0
GP-SP-4	GP-SP-4-SS-1-5'-7'	7/7/2011	5' - 7'	<1.9	<0.78	<0.027	<0.22	6.4	<0.53	3.9	6.0	<0.0098	1.90	<0.66	<0.20	<1.1	5.3
GP-4	GP-4-SS	3/23/2011	2' - 4'	<2.2	**4.80**	<0.079	0.11	8.8	NAF	5.6	7.9	0.033	2.10	<2.0	<0.23	<0.95	8.7
GP-6	GP-6-SS	3/23/2011	2' - 4'	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-10	GP-10-SS	3/23/2011	2' - 4'	<2.0	**1.4J**	<0.072	0.31	17	NAF	48	16.0	0.034	3.6	<1.8	<0.21	<0.86	1100
GP-31	GP-31-SS	3/23/2011	0' - 4'	<2.0	**1.1J**	<0.072	0.15J	6.5	NAF	2.6	9.2	0.031	1.6	<1.9	<0.21	<0.86	50
Sump-1	Sump-1-SS-1 -0' -2'	7/6/2011	0' - 2'	<1.9	<0.75	<0.026	<0.22	17.0	**0.88**	25.0	11.0	0.036	1.80	<0.64	<0.20	<1.1	63.0
Sump-1	Sump-1-SS-2 -6' -8'	7/6/2011	6' -8'	<2.1	<0.85	<0.030	<0.24	9.3	<1.1	3.1	8.1	0.037	2.70	<0.72	<0.22	<1.2	7.1
	Background	7/7/2011	1' - 3'	<2.0	**0.84J**	<0.028	<0.23	23.0	<0.55	6.7	11.0	0.055	2.9	<0.69	<0.21	<1.2	8.8
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				6.2	0.39	32	14	24,000	0.29	620	400	2.0	300	78	78	0.16	4,600
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				82	1.6	400	160	100,000	5.60	8,200	800	3.1	4000	1000	1000	2.0	62,000
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				0.9	5.8	63	3	360,000	3.8	700	270	1.0	130	2.1	3.4	0.28	1,200

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
Method Detection Limits are above the NCDENR-IHSB Preliminary Residential Health-Based SRGs, and/or the Protection of Groundwater SRGs

Table 7: Stockpile and Wastewater Sumps - Soil Analytical Data Summary (TCLP Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-SP-1	GP-SP-1--SS-1-6'-8'	7/7/2011	6' - 8'	<30	<8.6	<1	<1.8	3.9J	<2.4	<5	**56**	<0.04	2.2J	<16	<4	<20	36
GP-SP-2	GP-SP-2-SS-1-5.5'-7.5'	7/7/2011	5.5' - 7.5	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**29**	<0.04	<1.7	<16	<4	<20	41
GP-SP-2	GP-SP-2-SS-2, 10.3'-12'	7/7/2011	10.3' - 12'	<30	<8.6	<1	<1.8	<3.4	<2.4	6.7J	12	<0.04	2	<16	<4	<20	47
GP-SP-3	GP-SP-3-SS-1-4'-6'	7/7/2011	4' - 6'	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**58**	0.042J	<1.7	<16	<4	<20	38
GP-SP-4	GP-SP-4-SS-1-5'-7'	7/7/2011	5' - 7'	<30	<8.6	<1	<1.8	**14**	<2.4	<5	**71**	<0.04	<1.7	<16	<4	<20	42
Sump-1	Sump-1-SS-1 -0' -2'	7/6/2011	0' - 2'	**46J**	<8.6	<1	**3.1J**	8.8J	<2.4	16	**18**	<0.04	<1.7	16J	<4	<20	490
Sump-1	Sump-1-SS-2 -6' -8'	7/6/2011	6' -8'	<30	<8.6	<1	<1.8	<3.4	<2.4	6.4J	**43**	<0.04	<1.7	**21J**	<4	<20	20
	Background	7/7/2011	1' - 3'	<30	<8.6	<1	<1.8	6.3J	<2.4	7.7J	**67**	<0.04	<1.7	<16	<4	<20	48
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				1	10	4	2	10	10	1,000	15	1	100	20	20	0.20	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. TCLP = Toxicity Characteristic Leaching Procedure
4. < = less than the stated method detection limit
5. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
6. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards
Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 9: Rail Spur Groundwater Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-RR-2	GP-RR-2-GW	7/6/2011		<0.16	<8.6	<0.090	<0.026	<3.4	<2.4	1.2J	4.1	<0.04	2.9J	<2.5	<0.16	<0.15	13
GP-RR-4	GP-RR-4-GW	7/6/2011		<0.16	<8.6	<0.090	<0.026	<3.4	<2.4	0.59J	2.5	<0.04	2.3J	<2.5	<0.16	<0.15	8.4J
GP-RR-6	GP-RR-6-GW	7/6/2011		<0.16	<8.6	0.43J	0.21J	<3.4	<2.4	3.6J	7.4	<0.04	24	<2.5	<0.16	<0.15	41
GP-RR-8	GP-RR-8-GW	7/6/2011		<0.16	<8.6	<0.090	0.069J	<3.4	<2.4	2.8J	10	<0.04	13	<2.5	<0.16	<0.15	12
GP-RR-10	GP-RR-10-GW	7/6/2011		<0.16	<8.6	<0.090	0.034J	<3.4	<2.4	1.3J	5.8	<0.04	5.1	<2.5	<0.16	<0.15	15
GP-RR-12	GP-RR-12-GW	7/6/2011		<0.16	<8.6	<0.090	<0.026	<3.4	<2.4	1.6J	3.5	<0.04	5.9	<2.5	<0.16	<0.15	8.9
GP-14	GP-14-GW	3/22/2011		NAF	**10**	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
North Carolina Administrative Code (NCAC) Title 15 Subchapter 2L Section .0202-Groundwater Standards (15A NCAC 2L .0202)				1*	10	4*	2	10	10	1,000	15	1	100	20	20	0.2	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. < = Less than the stated method detection limit
4. * = 2L Standard lisited in Appendix 1 of the NCAC 2L Groundwater Standard.
5. NE = Not established
6. NAF = Not analyzed for
7. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)

BOLD Results Meet or Exceed the North Carolina-2L Groundwater Standards

Table 8: Rail Spur Groundwater Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8260C - VOCs	8270D - SVOCs
Contaminant of Concern				Acetone	2-Butanone (MEK)	tert-Butyl Alcohol (TBA)	Chloromethane	Methyl tert-Butyl Ether (MTBE)	Naphthalene	Toluene	Trichlorofluoromethane (Freon 11)	1,2,4-Trimethylbenzene	m+p Xylene	o-Xylene	Diethylphthalate
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)												
GP-RR-2	GP-RR-2-GW	7/6/2011		15J	<0.41	<3.5	0.86J	<0.050	0.25J	0.32J	0.20J	0.14J	0.23J	0.10J	<2.8
GP-RR-4	GP-RR-4-GW	7/6/2011		24J	1.0J	7.4J	1.3J	0.17J	<0.21	0.31J	<0.070	<0.060	0.21J	<0.050	5.4J
GP-RR-6	GP-RR-6-GW	7/6/2011		16J	<0.41	<3.5	0.34J	0.44J	<0.21	0.29J	<0.070	0.15J	0.29J	0.13J	9.3J
GP-RR-8	GP-RR-8-GW	7/6/2011		7.1J	<0.41	6.4J	0.33J	<0.050	<0.21	0.16J	<0.070	<0.060	0.15J	<0.050	6.8J
GP-RR-10	GP-RR-10-GW	7/6/2011		20J	<0.41	12J	1.4J	<0.050	<0.21	0.28J	<0.070	0.13J	0.22J	0.11J	3.7J
GP-RR-12	GP-RR-12-GW	7/6/2011		12J	0.95J	<3.5	2.6	<0.050	<0.21	0.26J	<0.070	0.11J	0.21J	<0.050	<2.8
North Carolina Administrative Code (NCAC) Title 15 Subchapter 2L Section .0202-Groundwater Standards (15A NCAC 2L .0202)				6,000	4,000	NE	3	20	6	600	2,000	400	500*		6,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. < = Less than the stated method detection limit
4. * = 2L Standard lisited in Appendix 1 of the NCAC 2L Groundwater Standard.
5. NE = Not established
6. NAF = Not analyzed for
7. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)

BOLD Results Meet or Exceed the North Carolina-2L Groundwater Standards

Table 10: Stockpile and Wastewater Sumps - Groundwater Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	8260B - VOCs	602
Contaminant of Concern				Acetone	2-Butanone (MEK)	Carbon Disulfide	Chloroform	Chloromethane	1,1-Dichloroethane	1,1-Dichloroethylene	4-Methyl-2-pentanone (MIBK)	Toluene	1,1,1-Trichloroethane	Trichlorofluoromethane (Freon 11)	1,1,2-Trichloro-1,2,2-trifluoroethane	m+p Xylene	o-Xylene	1,4-Dichlorobenzene
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)															
GP-10	GP-10-GW	3/23/2011		2.6J	<0.41	0.25J	0.12J	<0.13	1.8	0.53J	<0.22	0.21J	<0.050	8.7	0.84J	<0.070	<0.050	NAF
GP-6	GP-6-GW	3/23/2011		1.7J	<0.41	0.26J	<0.040	<0.13	4.1	0.59J	0.32J	0.23J	3.8	<0.070	<0.11	0.17J	<0.050	0.72J
GP-31	GP-31-GW	3/24/2011		6J	0.51J	0.49J	<0.040	0.33J	<0.090	<0.10	<0.22	0.54J	<0.050	<0.070	<0.11	0.3J	0.12J	NAF
North Carolina Administrative Code (NCAC) Title 15 Subchapter 2L Section .0202-Groundwater Standards (15A NCAC 2L .0202)				6,000	4,000	700	70	3	6	7	NE	600	200	2,000	200	500*		6,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. < = Less than the stated method detection limit
4. * = 2L Standard lisited in Appendix 1 of the NCAC 2L Groundwater Standard.
5. NE = Not established
6. NAF = Not analyzed for
7. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)

BOLD Results Meet or Exceed the North Carolina-2L Groundwater Standards

Table 11: Stockpile and Wastewater Sumps - Groundwater Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-Sump-1	Sump-1-GW	7/6/2011		<0.16	<8.6	<0.090	<0.026	<3.4	<2.4	2.4J	11	<0.04	5.3	<2.5	<0.16	<0.15	21
GP-10	GP-10-GW	3/23/2011		<0.63	**12**	<0.15	<0.13	5.3J	NAF	2.7J	5.3	<0.059	3.8J	1.4J	<0.096	<0.11	<32
GP-Sump-2	Sump-2-GW	7/7/2011		<0.16	9.3J	1.3	0.15J	**11**	<2.4	20	**490**	0.059J	16	<2.5	<0.16	**0.22**	73
GP-Sump-2	Duplicate	7/7/2011		<0.16	<8.6	0.47J	0.054J	3.9J	<2.4	8.6	**170**	0.096J	5.3	<2.5	<0.16	<0.15	11
GP-6	GP-6-GW	3/23/2011		<0.63	**12**	<0.15	<0.13	4.4J	NAF	2.6	3.4	<0.059	2.9J	<1.3	<0.096	<0.11	<32
GP-31	GP-31-GW	3/24/2011		<0.63	**10J**	0.65J	<0.13	**78**	NAF	28.0	6.1	<0.059	87	<1.3	<0.096	<0.11	160
North Carolina Administrative Code (NCAC) Title 15 Subchapter 2L Section .0202-Groundwater Standards (15A NCAC 2L .0202)				1*	10	4*	2	10	10	1,000	15	1	100	20	20	0.2	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. < = Less than the stated method detection limit
4. * = 2L Standard lisited in Appendix 1 of the NCAC 2L Groundwater Standard.
5. NE = Not established
6. NAF = Not analyzed for
7. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)

BOLD Results Meet or Exceed the North Carolina-2L Groundwater Standards

Table 11A: Stockpile and Wastewater Sumps - Groundwater Analytical Data Summary (Dissolved Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
GP-10	GP-10-GW	3/23/2011		NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-Sump-1	Sump-1-GW	7/6/2011		<0.16	<8.6	<0.090	<0.026	<3.4	<2.4	1.4J	3	<0.04	4.3J	<2.5	<0.16	<0.15	9.2J
GP-6	GP-6-GW	3/23/2011		NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
GP-Sump-2	Sump-2-GW	7/7/2011		0.40J	<8.6	<0.090	<0.026	<3.4	NAF	0.75J	2.3	<0.04	9.9	<2.5	<0.16	<0.15	220
GP-Sump-2	Duplicate	7/7/2011		0.16J	<8.6	<0.090	<0.026	<3.4	NAF	0.44J	2.0	<0.04	3J	<2.5	<0.16	<0.15	15
GP-31	GP-31-GW	3/24/2011		NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF	NAF
North Carolina Administrative Code (NCAC) Title 15 Subchapter 2L Section .0202-Groundwater Standards (15A NCAC 2L .0202)				1*	10	4*	2	10	10	1,000	15	1	100	20	20	0.2	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. < = Less than the stated method detection limit
4. * = 2L Standard lisited in Appendix 1 of the NCAC 2L Groundwater Standard.
5. NE = Not established
6. NAF = Not analyzed for
7. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)

BOLD Results Meet or Exceed the North Carolina-2L Groundwater Standards

Table 12: Rail Spur Confirmatory Soil Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8260C - VOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs
Contaminant of Concern				Acetone	Methylene Chloride	Naphthalene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)peryiene	Benzo(k)fluoranthene	Carbazole	Chrysene	Dibenz(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Sample Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)																						
RR-7	SW-1	11/17/2011	1.5'	<0.0083	<0.00036	0.0013J	7.2	9.6	**13**	**8.8**	**9.8**	4.3	**4.3**	**4.2**	13	**1.9**	3.3	<0.16	22	5.5	**6.1**	1	1.4	2.1	35	21
RR-7	SW-2	11/17/2011	1.5'	0.0088J	<0.00031	0.0013J	0.43	0.64	**1.2**	**0.86**	**1**	0.46	0.42	0.26	1.2	**0.18J**	0.17J	<0.079	2.3	0.34	**0.65**	<0.11	<0.11	<0.079	2.1	1.8
RR-7	SW-3	11/17/2011	1.5'	0.0069J	<0.00029	<0.00015	<0.094	<0.094	<0.094	<0.11	<0.11	<0.082	<0.12	<0.094	<0.094	<0.082	<0.094	<0.082	<0.082	<0.11	<0.082	<0.12	<0.12	<0.082	<0.094	<0.12
RR-7	SW-4	11/17/2011	1.5'	<0.0062	<0.00027	0.00088J	2.5	3.7	**7.4**	**6.5**	**6.6**	4.7	**2.8**	**2.4**	8.1	**1.3**	1.3	<0.078	19	2.2	**5.3**	**0.27**	0.37	0.6	20	17
RR-7	FL-1	11/17/2011	3'	<0.0073	<0.00032	<0.00016	<0.093	<0.093	0.12J	0.17J	0.21	<0.082	<0.12	<0.093	0.14J	<0.082	<0.093	<0.082	0.19J	<0.10	<0.082	<0.12	<0.12	<0.082	0.17J	0.14J
GP-15	SW-1	11/17/2011	1.5'	<0.0067	<0.00029	<0.00015	<0.090	<0.090	<0.090	<0.10	<0.10	<0.079	<0.11	<0.090	<0.090	<0.079	<0.090	<0.091	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.090	<0.11
GP-15	SW-2	11/17/2011	1.5'	<0.0064	<0.00028	<0.00014	<0.090	<0.090	<0.090	<0.10	<0.10	<0.079	<0.11	<0.090	<0.090	<0.079	<0.090	<0.079	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.090	<0.11
GP-15	SW-3	11/17/2011	1.5'	0.0075J	0.00031J	<0.00014	<0.093	<0.093	<0.093	<0.10	<0.10	<0.081	<0.12	<0.093	<0.093	<0.081	<0.093	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.093	<0.12
GP-15	SW-4	11/17/2011	1.5'	<0.0064	<0.00028	<0.00014	<0.090	<0.090	<0.090	<0.10	<0.10	<0.079	<0.11	<0.090	<0.090	<0.079	<0.090	<0.079	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.090	<0.11
GP-15	FL-1	11/17/2011	3'	<0.0060	<0.00026	<0.00013	<0.093	<0.093	<0.093	<0.10	<0.10	<0.081	<0.12	<0.093	<0.093	<0.081	<0.093	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.093	<0.12
GP-14	SW-1	11/17/2011	1.5'	0.0065J	<0.00027	<0.00013	<0.091	<0.091	<0.091	<0.10	<0.10	<0.079	<0.11	<0.091	<0.091	<0.079	<0.091	<0.079	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.091	<0.11
GP-14	SW-2	11/17/2011	1.5'	0.0071J	<0.00026	<0.00013	<0.091	<0.091	<0.091	<0.10	<0.10	<0.080	<0.11	<0.091	<0.091	<0.080	<0.091	<0.080	<0.080	<0.10	<0.080	<0.11	<0.11	<0.080	<0.091	<0.11
GP-14	SW-3	11/17/2011	1.5'	0.0062J	0.00036J	0.00071J	<0.091	0.56	**0.24**	**0.26**	**0.38**	0.16J	0.15J	<0.091	0.33	<0.080	<0.091	<0.080	0.75	<0.10	**0.18J**	<0.11	<0.11	<0.080	0.58	0.52
GP-14	SW-4	11/17/2011	1.5'	0.0066J	0.00053J	<0.00012	<0.090	<0.090	<0.090	<0.10	<0.10	<0.079	<0.11	<0.090	<0.090	<0.079	<0.090	<0.079	<0.079	<0.10	<0.079	<0.11	<0.11	<0.079	<0.090	<0.11
GP-14	FL-1	11/17/2011	3'	<0.0073	0.00039J	<0.00016	<0.092	<0.092	<0.092	<0.10	<0.10	<0.081	<0.12	<0.092	<0.092	<0.081	<0.092	<0.081	<0.081	<0.10	<0.081	<0.12	<0.12	<0.081	<0.092	<0.12
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				12,000	11	3.6	680	3,400	0.15	0.02	0.15	NE	1.5	NE	15	0.015	16	240	460	460	0.15	22	62	3.6	NE	340
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				100,000	53	18	6,600	34,000	21	0.21	2.1	NE	21	NE	210	0.21	170	2400	4400	4400	2.1	99	370	18	NE	3400
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				24	0.023	0.21	8.4	660	0.18	0.059	0.60	7,800	5.9	0.37	18	0.19	5.2	1.4	330	56	2	0.055	1.6	0.21	68	220

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site E
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs (Residential PSRG)
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs (Industrial PSRG)
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential PSRGs and the Protection of Groundwater SRGs

TOTAL RISK TOTAL HAZARD

Ave Haz Q can't exceed 1

Carcinogen Can't exceed 1×10^{-4}

$\frac{13 \times 10^{-6}}{2.1} = 6.19 \times 10^{-6}$ $\frac{1.0 \times 10^{-6}}{2.1} = \frac{X}{13}$

$\frac{1.0}{2.1} \frac{1,000,000}{} = \frac{X}{Cmc}$

$1EE-06$

1.6×10^{-7}

$\frac{1}{} = HQ$

Table 12A: Rail Spur Confirmatory Soil Analytical Data Summary (TCLP VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				TCLP - VOCs	TCLP - SVOCs
Contaminant of Concern				All COC	All COC
Sample Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)		
RR-7	SW-1	11/17/2011	1.5'	<MDL	<MDL
RR-7	SW-2	11/17/2011	1.5'	<MDL	<MDL
RR-7	SW-3	11/17/2011	1.5'	<MDL	<MDL
RR-7	SW-4	11/17/2011	1.5'	<MDL	<MDL
RR-7	FL-1	11/17/2011	3'	<MDL	<MDL
GP-15	SW-1	11/17/2011	1.5'	<MDL	<MDL
GP-15	SW-2	11/17/2011	1.5'	<MDL	<MDL
GP-15	SW-3	11/17/2011	1.5'	<MDL	<MDL
GP-15	SW-4	11/17/2011	1.5'	<MDL	<MDL
GP-15	FL-1	11/17/2011	3'	<MDL	<MDL
GP-14	SW-1	11/17/2011	1.5'	<MDL	<MDL
GP-14	SW-2	11/17/2011	1.5'	<MDL	<MDL
GP-14	SW-3	11/17/2011	1.5'	<MDL	<MDL
GP-14	SW-4	11/17/2011	1.5'	<MDL	<MDL
GP-14	FL-1	11/17/2011	3'	<MDL	<MDL
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				Various	Various

NOTES:

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. VOCs = volatile organic compounds
4. SVOCs = semi-volatile organic compounds
5. < = less than the stated method detection limit
6. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
7. < 0.0056 = Is the Method Detection Limit
8. coc = Chemicals of Concern
9. TCLP = Toxicity Charateristic Leaching Procedure

Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards
Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 16: Stockpile - Confirmatory Soil Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony 12.5/18 0.69	Arsenic 25/18 1,40	Beryllium	Cadmium	Chromium	8.45/18 Hexavalent Chromium 0.47	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Sample Location	Sample ID	Date Collected (m/dd/yy)	Sample Depth (ft BGS)														
AREA-1	AREA-1-SS-1	11/15/2011	12"-18"	<2	<0.80	0.040J	<0.23	9.8	**0.41**	3.7	9.4	0.026J	1.9	<0.68	<0.21	<1.2	10
AREA-2	AREA-2-SS-1	11/15/2011	12"-18"	**2.4J**	<0.79	0.032J	<0.23	9.6	<0.21	3.0	9.1	0.025J	1.8	<0.67	<0.21	<1.2	11
AREA-3	AREA-3-SS-1	11/15/2011	12"-18"	<2	<0.80	0.037J	<0.23	9.9	0.28J	3.1	8.8	0.030	1.7	<0.68	<0.21	<1.2	6.9
AREA-3	AREA-3-SS-2	11/15/2011	12"-18"	<2	<0.78	0.048J	<0.23	8.8	<0.21	2.7	8.4	0.033	1.4	<0.67	<0.21	<1.2	6.1
AREA-4	AREA-4-SS-1	11/15/2011	12"-18"	**2.8**	<0.80	0.041J	<0.23	9.4	<0.21	4.5	8.8	0.029	1.5	<0.68	<0.21	<1.2	7.2
AREA-4	AREA-4-SS-2	11/15/2011	12"-18"	**3.1**	<0.81	<0.028	<0.23	8.4	**0.29J**	3.6	6.7	0.016J	2	<0.69	<0.21	<1.2	6.9
AREA-5	AREA-5-SS-1	11/15/2011	12"-18"	<2	**3.5**	<0.028	<0.23	9.1	<0.22	4.2	11.0	0.019	2.2	<0.67	<0.21	<1.2	9.4
AREA-6	AREA-6-SS-1	11/15/2011	12"-18"	<2	**3.1**	<0.028	<0.23	10	**0.41**	3.9	10.0	0.034	2.1	<0.67	<0.21	<1.2	7.6
AREA-6	AREA-6-SS-2	11/15/2011	12"-18"	<1.9	**3**	<0.027	<0.22	10	<0.21	3.7	0.78J	0.036	2.0	<0.66	<0.20	<1.1	8.1
AREA-7	AREA-7-SS-1	11/16/2011	18"-24"	**2J**	<0.79	0.072J	<0.23	7.8	**0.41**	2.7	7.9	0.027J	1.3	<0.67	<0.21	<1.2	6.8
AREA-7	AREA-7-SS-2	11/16/2011	18"-24"	**2.2J**	<0.78	<0.027	<0.22	6.8	**0.74J**	2.3	6.8	0.031	1.2	<0.66	<0.21	<1.1	6.2
AREA-8	AREA-8-SS-1	11/16/2011	18"-24"	<2	**3**	<0.028	<0.23	9.5	<0.53	3.5	9.8	0.032	2	<0.67	<0.21	<1.2	9.3
AREA-8	AREA-8-SS-2	11/16/2011	18"-24"	<1.9	**2.4J**	<0.027	<0.22	10	<0.53	3.1	10	0.032	2.5	<0.66	<0.20	<1.1	9.1
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				6.2	0.39	32	14	24,000	0.29	620	400	2.0	300	78	78	0.16	4,600
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				82	1.6	400	160	100,000	5.60	8,200	800	3.1	4000	1000	1000	2.0	62,000
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				0.9	5.8	63	3	360,000	3.8	700	270	1.0	130	2.1	3.4	0.28	1,200

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
	Method Detection Limits are above the NCDENR-IHSB Preliminary Residential Health-Based SRGs, and/or the Protection of Groundwater SRGs

Table 16: Stockpile - Confirmatory Soil Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Sample Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
AREA-9	AREA-9-SS-1	11/16/2011	12"-18"	<1.9	**1.6J**	<0.027	<0.22	6.3	<0.52	2.4	7.9	<0.029	1.2	<0.65	<0.20	<1.1	7.1
AREA-10	AREA-10-SS-1	11/16/2011	12"-18"	<1.9	**1.5J**	<0.027	<0.22	5.8	**4.1**	2.2	6.9	0.035	1.1	<0.65	<0.20	<1.1	6.4
AREA-10	AREA-10-SS-2	11/16/2011	12"-18"	<1.9	**2.3J**	<0.027	<0.22	7.2	<0.51	2.7	7	0.035	1.5	<0.65	<0.20	<1.1	7.2
AREA-11	AREA-11-SS-1	11/16/2011	18"-24"	<2	**2.2J**	<0.028	<0.23	8.2	**2.5**	3.1	10	0.027J	1.7	<0.68	<0.21	<1.2	13
AREA-11	AREA-11-SS-2	11/16/2011	18"-24"	<2	**2.7J**	<0.028	<0.23	9.4	<0.53	3.3	9	0.051	2	<0.68	<0.21	<1.2	16.0
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				6.2	0.39	32	14	24,000	0.29	620	400	2.0	300	78	78	0.16	4,600
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				82	1.6	400	160	100,000	5.60	8,200	800	3.1	4000	1000	1000	2.0	62,000
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				0.9	5.8	63	3	360,000	3.8	700	270	1.0	130	2.1	3.4	0.28	1,200

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting l.imit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
Method Detection Limits are above the NCDENR-IHSB Preliminary Residential Health-Based SRGs, and/or the Protection of Groundwater SRGs

Table 17: Stockpile - Confirmatory Soil Analytical Data Summary (TCLP Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
AREA-1	AREA-1-SS-1	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**20**	<0.04	<1.7	<16	<4	<20	26
AREA-2	AREA-2-SS-1	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	**22**	<0.04	<1.7	<16	<4	<20	62
AREA-3	AREA-3-SS-1	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	9.5J	<0.04	<1.7	<16	<4	<20	13J
AREA-3	AREA-3-SS-2	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	7.4J	<0.04	<1.7	<16	<4	<20	<7.1
AREA-4	AREA-4-SS-1	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	6	7.3J	6.7J	<0.04	<1.7	<16	<4	<20	18J
AREA-4	AREA-4-SS-2	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	6.3	<5	5.9J	<0.04	<1.7	<16	<4	<20	<7.1
AREA-5	AREA-5-SS-1	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	**160**	<2.4	<5	11	<0.04	<1.7	<16	<4	<20	<7.1
AREA-6	AREA-6-SS-1	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	**180**	<2.4	5.4J	**17**	<0.04	<1.7	<16	<4	<20	22
AREA-6	AREA-6-SS-2	11/15/2011	12"-18"	<30	<8.6	<1	<1.8	**180**	<2.4	<5	**15**	<0.04	<1.7	<16	<4	<20	9.9J
AREA-7	AREA-7-SS-1	11/16/2011	18"-24"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	8J	<0.04	<1.7	<16	<4	<20	17J
AREA-7	AREA-7-SS-2	11/16/2011	18"-24"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	8.4J	<0.04	<1.7	<16	<4	<20	18J
AREA-8	AREA-8-SS-1	11/16/2011	18"-24"	<30	<8.6	<1	<1.8	<3.4	3.6J	<5	5.5J	<0.04	<1.7	<16	<4	<20	15J
AREA-8	AREA-8-SS-2	11/16/2011	18"-24"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	<2.7	<0.04	<1.7	<16	<4	<20	13J
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				1	10	4	2	10	10	1,000	15	1	100	20	20	0.20	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. TCLP = Toxicity Characteristic Leaching Procedure
4. < = less than the stated method detection limit
5. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
6. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 17: Stockpile - Confirmatory Soil Analytical Data Summary (TCLP Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
AREA-9	AREA-9-SS-1	11/16/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	8.8J	11	<0.04	<1.7	<16	<4	<20	38
AREA-10	AREA-10-SS-1	11/16/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	4.5J	<0.04	<1.7	<16	<4	<20	12J
AREA-10	AREA-10-SS-2	11/16/2011	12"-18"	<30	<8.6	<1	<1.8	<3.4	<2.4	<5	4.2J	<0.04	<1.7	<16	<4	<20	<7.1
AREA-11	AREA-11-SS-1	11/16/2011	18"-24"	<30	<8.6	<1	1.9J	<3.4	<2.4	5J	6.2J	<0.04	<1.7	<16	<4	<20	37
AREA-11	AREA-11-SS-2	11/16/2011	18"-24"	<30	<8.6	<1	<1.8	<3.4	<2.4	5.1J	4.7J	<0.04	<1.7	<16	<4	<20	86
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				1	10	4	2	10	10	1,000	15	1	100	20	20	0.20	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. TCLP = Toxicity Characteristic Leaching Procedure
4. < = less than the stated method detection limit
5. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
6. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 13: Rail Spur Confirmatory Soil Analytical Data Summary (Total Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Sample Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
RR-7	SW-1	11/17/2011	1.5'	<2.1	<0.83	<0.029	<0.24	10	**0.73**	2.9	7.3	0.022J	1.7	<0.71	<0.22	<1.2	5.2
RR-7	SW-2	11/17/2011	1.5'	<2	<0.82	<0.029	<0.23	8	<0.21	3	6.9	0.026J	2	<0.69	<0.22	<1.2	4.8
RR-7	SW-3	11/17/2011	1.5'	<2.1	<0.85	<0.030	<0.24	9.6	<0.56	1.5	6.4	0.031	1.6	<0.72	<0.22	<1.2	4.4
RR-7	SW-4	11/17/2011	1.5'	<2	<0.80	<0.028	<0.23	6.6	<0.54	1.8	7.1	0.025J	1.3	<0.68	<0.21	<1.2	4.4
RR-7	FL-1	11/17/2011	3'	<2.1	<0.83	<0.029	<0.24	11	<0.55	2.3	5.9	0.049	1.6	<0.71	<0.22	<1.2	3.9
GP-15	SW-1	11/17/2011	1.5'	<2	<0.80	<0.028	<0.23	6	**2.5**	0.83	4.8	0.035	1.3	<0.68	<0.21	<1.2	3.2
GP-15	SW-2	11/17/2011	1.5'	<2	<0.81	<0.028	<0.23	5.8	**2.10**	0.78	4.6	0.035	1.2	<0.69	<0.21	<1.2	4
GP-15	SW-3	11/17/2011	1.5'	<2.1	<0.83	<0.029	<0.24	7.8	<0.54	1.5	5.5	0.032	1.9	<0.70	<0.22	<1.2	4.6
GP-15	SW-4	11/17/2011	1.5'	<2	<0.81	<0.029	<0.23	6.8	<0.22	1	5.2	0.039	1.6	<0.69	<0.22	<1.2	3.8
GP-15	FL-1	11/17/2011	3'	<2.1	<0.83	<0.029	<0.24	7.2	<0.55	1.5	5.7	0.055	1.6	<0.71	<0.22	<1.2	3.5
GP-14	SW-1	11/17/2011	1.5'	<2.0	<0.81	<0.028	<0.23	4.9	<1.1	0.85	4.1	0.029	1	<0.69	<0.21	<1.2	3.6
GP-14	SW-2	11/17/2011	1.5'	<2.0	<0.82	<0.029	<0.24	6.1	<0.54	0.59	5.6	0.031	1.4	<0.70	<0.22	<1.2	2.6
GP-14	SW-3	11/17/2011	1.5'	<2.0	<0.82	<0.029	<0.24	5.7	<0.54	1.8	6.2	0.033	1.6	<0.70	<0.22	<1.2	13
GP-14	SW-4	11/17/2011	1.5'	<2.0	<0.81	<0.028	<0.23	6.3	<0.52	0.57	5.3	0.028	1.3	<0.69	<0.21	<1.2	3.1
GP-14	FL-1	11/17/2011	3'	<2.1	<0.82	<0.029	<0.24	5.5	<0.55	<0.49	5.4	0.037	1.1	<0.70	<0.22	<1.2	2.4
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				6.2	0.39	32	14	24,000	0.29	620	400	2.0	300	78	78	1.0	4,600
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				82	1.6	400	160	100,000	5.6	8,200	800	3.1	4000	1000	1000	2.0	62,000
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				0.9	5.8	63	3	360,000	3.8	700	270	1.0	130	2.1	3.4	0.28	1,200

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. < = less than the stated method detection limit
6. SRGs = soil remediation goals
7. NE = Not established
8. NAF = Not analyzed for
9. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
10. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
Method Detection Limits are above the NCDENR-IHSB Preliminary **Residential** Health-Based SRGs, and/or the **Protection of Groundwater** SRGs

Table 14: Rail Spur - Confirmatory Soil Analytical Data Summary (TCLP Metals)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				6010C	6010C	6010C	6010C	6010C	7196A	6010C	6010C	7471B	6010C	6010C	6010C	6010C	6010C
Contaminant of Concern				Antimony	Arsenic	Beryllium	Cadmium	Chromium	Hexavalent Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)														
RR-7	SW-1	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	3.5J	<5.0	**42**	<0.04	<1.7	<16	<4.0	<20	14J
RR-7	SW-2	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	**39**	<0.04	<1.7	<16	<4.0	<20	12J
RR-7	SW-3	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	**18**	<0.04	<1.7	<16	<4.0	<20	<7.1
RR-7	SW-4	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	6J	<0.04	<1.7	<16	<4.0	<20	<7.1
RR-7	FL-1	11/17/2011	3'	<30	<8.6	<1.0	<1.8	<3.4	3.5J	<5.0	9J	<0.04	<1.7	<16	<4.0	<20	<7.1
GP-15	SW-1	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	3.5J	<5.0	**31**	<0.04	<1.7	<16	<4.0	<20	11J
GP-15	SW-2	11/17/2011	1.5'	<30	<8.6	<1.0	**1.8J**	4.2J	9.6	66	<2.7	<0.04	**240**	<16	<4.0	<20	400
GP-15	SW-3	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	3.5J	<5.0	**33**	<0.04	1.8J	<16	<4.0	<20	26
GP-15	SW-4	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	5J	<2.4	6.8J	**33**	<0.04	5.2J	<16	<4.0	<20	12J
GP-15	FL-1	11/17/2011	3'	<30	<8.6	<1.0	<1.8	<3.4	3.5J	<5.0	**32**	<0.04	<1.7	<16	<4.0	<20	<7.1
GP-14	SW-1	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	6.7J	<2.4	<5.0	**21**	<0.04	<1.7	<16	<4.0	<20	18J
GP-14	SW-2	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	**22**	<0.04	<1.7	<16	<4.0	<20	8.8J
GP-14	SW-3	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	**24**	<0.04	<1.7	<16	<4.0	<20	80
GP-14	SW-4	11/17/2011	1.5'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	**22**	<0.04	<1.7	<16	<4.0	<20	<7.1
GP-14	FL-1	11/17/2011	3'	<30	<8.6	<1.0	<1.8	<3.4	<2.4	<5.0	**22**	<0.04	<1.7	<16	<4.0	<20	<7.1
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				1	10	4	2	10	10	1,000	15	1	100	20	20	0.20	1,000

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. TCLP = Toxicity Characteristic Leaching Procedure
4. < = less than the stated method detection limit
5. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
6. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 15: Stockpile - Confirmatory Soil Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs
Contaminant of Concern				Acetone	Methylene Chloride	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)										
AREA-1	AREA-1-SS-1	11/15/2011	12"-18"	0.011J	0.0032J	<0.089	<0.10	<0.10	<0.089	<0.078	<0.078	<0.089	<0.11
AREA-2	AREA-2-SS-1	11/15/2011	12"-18"	0.012J	0.0031J	<0.088	<0.099	<0.099	<0.088	<0.077	<0.077	<0.088	<0.11
AREA-3	AREA-3-SS-1	11/15/2011	12"-18"	<0.0072	0.0025J	<0.090	<0.10	<0.10	<0.090	<0.079	<0.079	<0.090	<0.11
AREA-3	AREA-3-SS-2	11/15/2011	12"-18"	0.0096J	0.0029J	<0.088	<0.099	<0.099	<0.088	<0.077	<0.077	<0.088	<0.11
AREA-4	AREA-4-SS-1	11/15/2011	12"-18"	0.016J	0.0041J	<0.089	<0.10	<0.10	<0.089	<0.078	<0.078	<0.089	<0.11
AREA-4	AREA-4-SS-2	11/15/2011	12"-18"	0.010J	0.0037J	<0.090	<0.10	<0.10	<0.090	<0.079	<0.079	<0.090	<0.11
AREA-5	AREA-5-SS-1	11/15/2011	12"-18"	0.012J	0.0039J	<0.092	<0.10	<0.10	<0.092	<0.080	<0.080	<0.092	<0.11
AREA-6	AREA-6-SS-1	11/15/2011	12"-18"	0.010J	0.0036J	<0.088	<0.10	<0.10	<0.088	<0.077	<0.077	<0.088	<0.11
AREA-6	AREA-6-SS-2	11/15/2011	12"-18"	0.0077J	0.0030J	<0.088	<0.099	<0.099	<0.088	<0.077	<0.077	<0.088	<0.11
AREA-7	AREA-7-SS-1	11/16/2011	18"-24"	0.011J	0.00030J	<0.088	<0.099	<0.099	<0.088	<0.077	<0.077	<0.088	<0.11
AREA-7	AREA-7-SS-2	11/16/2011	18"-24"	0.010J	0.0013J	<0.087	<0.098	<0.098	<0.087	<0.076	<0.076	<0.087	<0.11
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				12,000	11	0.15	0.02	0.15	15	460	0.15	NE	340
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				100,000	53	21	0.21	2.1	210	4400	2.1	NE	3400
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				24	0.023	0.18	0.059	0.60	18	330	2	68	220

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs (Residential PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs (Industrial PSRG)
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs and the Protection to Groundwater SRGs

Table 15: Stockpile - Confirmatory Soil Analytical Data Summary (VOC and SVOC Detected Parameters Only)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				8260C - VOCs	8260C - VOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs	8270D - SVOCs
Contaminant of Concern				Acetone	Methylene Chloride	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Chrysene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)										
AREA-8	AREA-8-SS-1	11/16/2011	18"-24"	0.011J	0.0015J	0.11J	**0.11J**	0.11J	0.14J	0.21	<0.078	0.17J	0.19
AREA-8	AREA-8-SS-2	11/16/2011	18"-24"	0.0077J	0.0015J	<0.089	<0.10	<0.10	<0.089	<0.078	<0.078	<0.089	<0.11
AREA-9	AREA-9-SS-1	11/16/2011	12"-18"	0.0085J	0.0013J	<0.087	<0.098	<0.098	<0.087	<0.076	<0.076	<0.087	<0.11
AREA-10	AREA-10-SS-1	11/16/2011	12"-18"	0.0074J	0.0017J	<0.087	<0.098	<0.098	<0.087	<0.077	<0.077	<0.087	<0.11
AREA-10	AREA-10-SS-2	11/16/2011	12"-18"	<0.0061	0.0012J	<0.088	<0.099	<0.099	<0.088	<0.077	<0.077	<0.088	<0.11
AREA-11	AREA-11-SS-1	11/16/2011	18"-24"	0.0092J	0.0013J	<0.090	<0.10	<0.10	<0.090	0.12J	<0.078	<0.090	<0.11
AREA-11	AREA-11-SS-2	11/16/2011	18"-24"	<0.0060	<0.00026	0.15J	0.14J	0.17J	0.17J	0.35	0.11J	0.23	0.25
NCDENR - IHSB Preliminary Residential Health-Based SRGs (August 2011)				12,000	11	0.15	0.02	0.15	15	460	0.15	NE	340
NCDENR - IHSB Preliminary Industrial Health-Based SRGs (August 2011)				100,000	53	21	0.21	2.1	210	4400	2.1	NE	3400
NCDENR - IHSB Protection of Groundwater SRGs (August 2011)				24	0.023	0.18	0.059	0.60	18	330	2	68	220

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in mg/kg = millligrams per kilogram
3. NCDENR = North Carolina Department of Environment and Natural Resources
4. IHSB = Inactive Hazardous Site Branch
5. VOCs = volatile organic compounds
6. SVOCs = semi-volatile organic compounds
7. < = less than the stated method detection limit
8. SRGs = soil remediation goals
9. NE = Not established
10. NAF = Not analyzed for
11. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
12. < 0.0056 = Is the Method Detection Limit

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential
BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs and the Protection to

Table 15A: Stockpile - Confirmatory Soil Analytical Data Summary (TCLP VOC and SVOC)

Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				TCLP - VOCs	TCLP - SVOCs
Contaminant of Concern				All COC	All COC
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)		
AREA-1	AREA-1-SS-1	11/15/2011	12"-18"	< MDLs	<MDLs
AREA-2	AREA-2-SS-1	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-3	AREA-3-SS-1	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-3	AREA-3-SS-2	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-4	AREA-4-SS-1	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-4	AREA-4-SS-2	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-5	AREA-5-SS-1	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-6	AREA-6-SS-1	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-6	AREA-6-SS-2	11/15/2011	12"-18"	<MDLs	<MDLs
AREA-7	AREA-7-SS-1	11/16/2011	18"-24"	<MDLs	<MDLs
AREA-7	AREA-7-SS-2	11/16/2011	18"-24"	<MDLs	<MDLs
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				Various	Various

NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. VOCs = volatile organic compounds
4. SVOCs = semi-volatile organic compounds
5. < = less than the stated method detection limit
6. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
7. < 0.0056 = Is the Method Detection Limit
8. coc = Chemicals of Concern
9. TCLP = Toxicity Charateristic Leaching Procedure

Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards
Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Table 15A: Stockpile - Confirmatory Soil Analytical Data Summary (TCLP VOC and SVOC)
Flanders/PrecisionAire Facility
2121-B Wal-Pat Road
Smithfield, Johnston County, North Carolina
PSI Project No. 0511-324

Analytical Method				TCLP - VOCs	TCLP - SVOCs
Contaminant of Concern				All COC	All COC
Boring Location	**Sample ID**	**Date Collected** (m/dd/yy)	**Sample Depth** (ft BGS)		
AREA-8	AREA-8-SS-1	11/16/2011	18"-24"	< MDLs	<MDLs
AREA-8	AREA-8-SS-2	11/16/2011	18"-24"	<MDLs	<MDLs
AREA-9	AREA-9-SS-1	11/16/2011	12"-18"	<MDLs	<MDLs
AREA-10	AREA-10-SS-1	11/16/2011	12"-18"	<MDLs	<MDLs
AREA-10	AREA-10-SS-2	11/16/2011	12"-18"	<MDLs	<MDLs
AREA-11	AREA-11-SS-1	11/16/2011	18"-24"	<MDLs	<MDLs
AREA-11	AREA-11-SS-2	11/16/2011	18"-24"	<MDLs	<MDLs
North Carolina Administrative Code Title 15A Subchapter 2L Water Quuality Standards				Various	Various

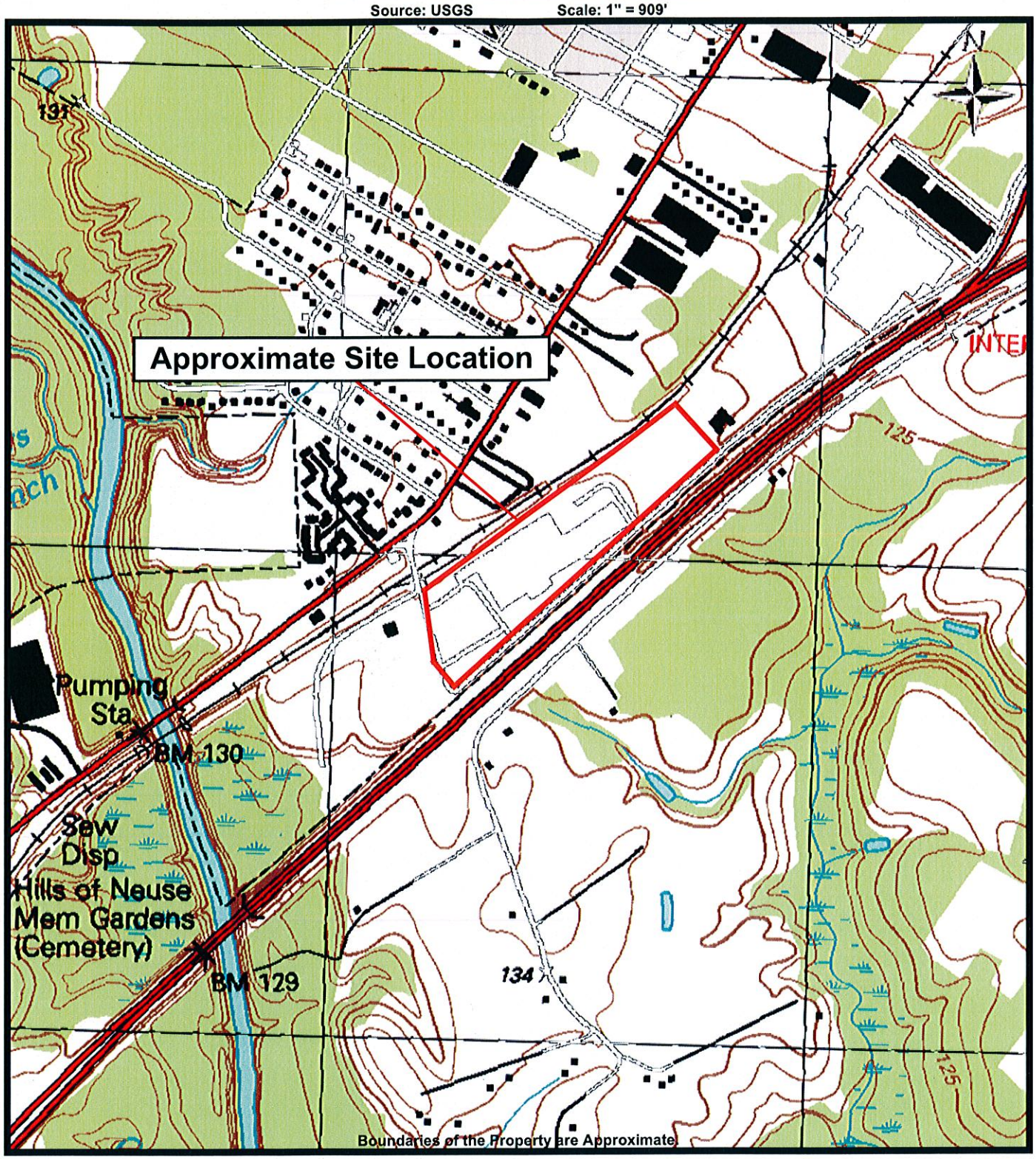
NOTES

1. ft. BGS = feet below ground surface
2. Results reported in ug/L = micrograms per liter
3. VOCs = volatile organic compounds
4. SVOCs = semi-volatile organic compounds
5. < = less than the stated method detection limit
6. J = Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag)
7. < 0.0056 = Is the Method Detection Limit
8. coc = Chemicals of Concern
9. TCLP = Toxicity Charateristic Leaching Procedure

Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards
Method detection limits are above The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Figures

Image Provided by Environmental Data Resources, Inc.
Source: USGS Scale: 1" = 909'



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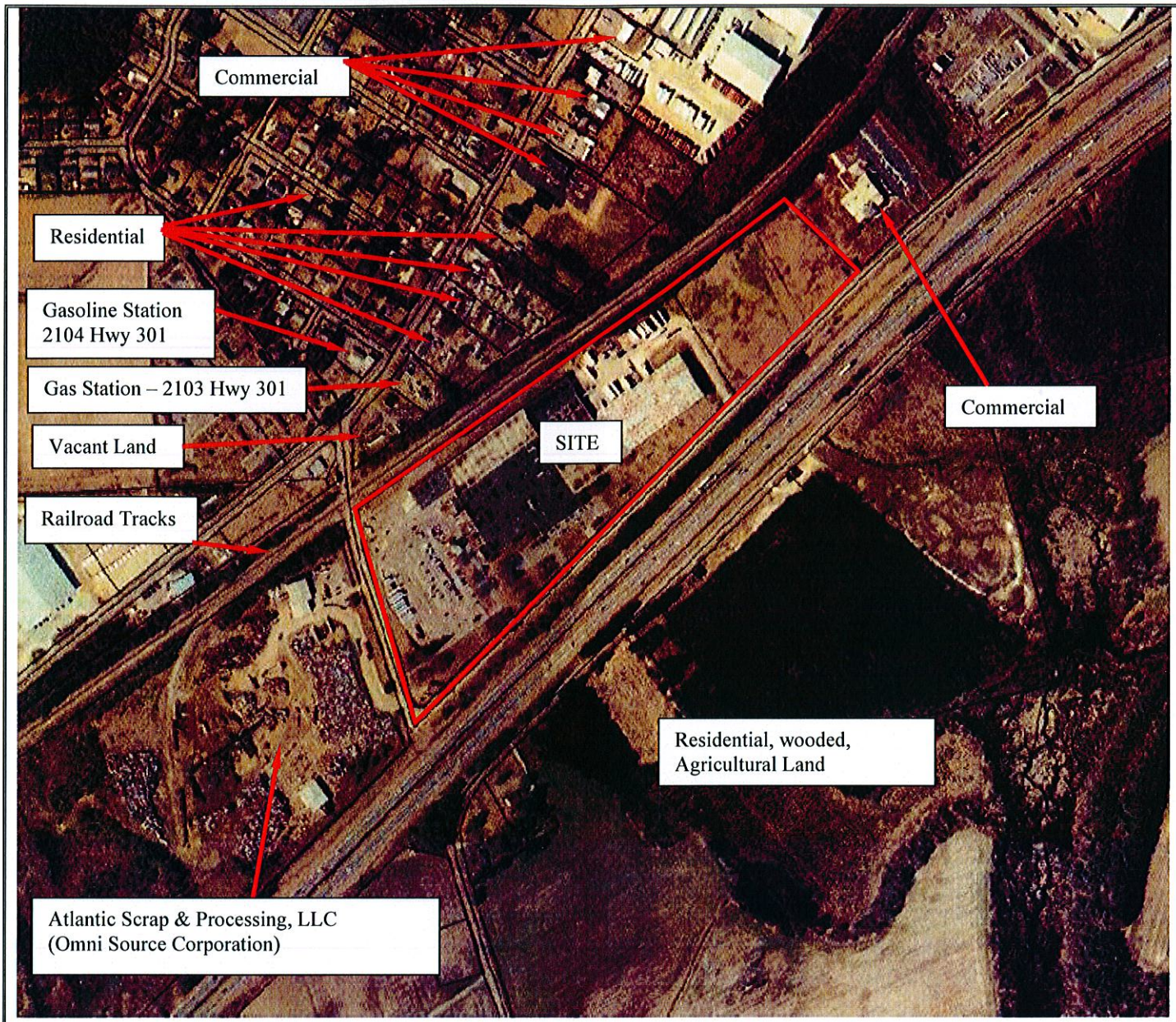
SITE LOCATION MAP
0511-281 - Flanders/PrecisionAire Facility
2121 Wal-Pat Road
Smithfiled, NC 27577

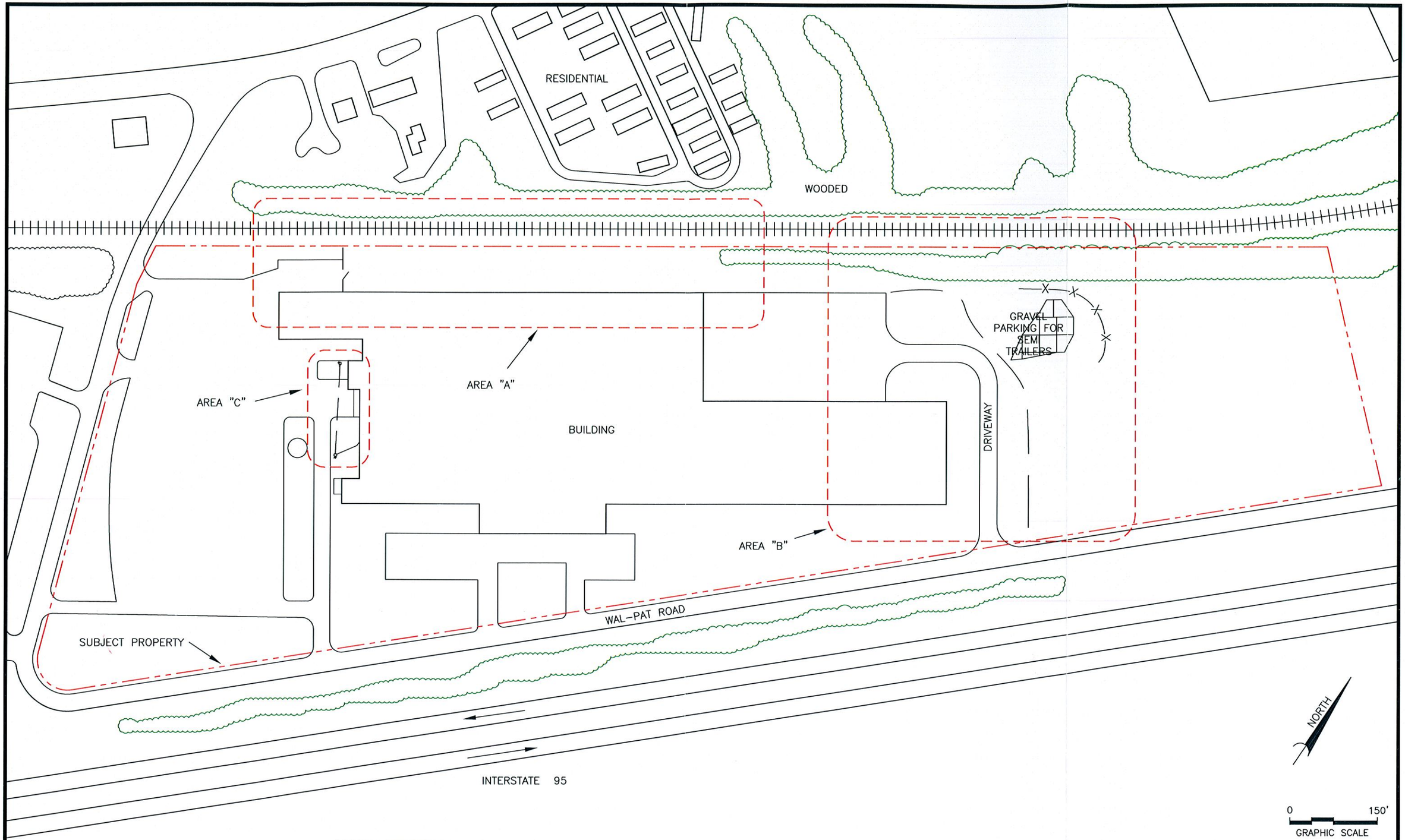
PREPARED FOR: W.P. Carey & Company, LLC
PROJ. MGR: Bryan M. Lucas DATE: 02/03/2011
DRAWN BY: Bryan M. Lucas PROJ. #: 0511-281



Base Map – 2005 Aerial from Johnston County On-line GIS

North

Project Name: Flanders/PrecisionAire 2121-B Wal-Pat Road Smithfield, Johnston County, North Carolina	Not to scale, locations are approximate
Project No.: 0511324 / **Date:** February 2011	**Figure 2** **Site Vicinity Map**



ALL LOCATIONS ARE APPROXIMATE

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Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

Site Map - Areas "A" , "B" and "C"

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 150'	10-10-11	3

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

WOODED

GP-RR-1	GP-RR-1-SS-1 0'-2'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Antimony	3.3 mg/Kg	ND
Chromium	4.3 mg/Kg	4.5J ug/L
Copper	2.0 mg/Kg	ND
Lead	3.7 mg/Kg	17 ug/L
Mercury	0.021J mg/Kg	0.04ug/L
Nickel	1.2 mg/Kg	ND
Zinc	7.6 mg/Kg	96 ug/L

GP-RR-1	GP-RR-1-SS-2 6'-8'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	1.2 mg/Kg	ND
Chromium	5.3 mg/Kg	4.6J ug/L
Copper	4.0 mg/Kg	ND
Lead	7.6 mg/Kg	65 ug/L
Nickel	2.2 mg/Kg	ND
Zinc	5.9 mg/Kg	45 ug/L
Hexavalent Chromium	2.1 mg/Kg	5.6J ug/L

GP-RR-11	GP-RR-11-SS-1 0'-2'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	1.2J mg/Kg	ND
Chromium	7.2 mg/Kg	ND
Copper	2.0 mg/Kg	ND
Lead	6.7 mg/Kg	12 ug/L
Mercury	0.057 mg/Kg	ND
Nickel	1.7 mg/Kg	ND
Zinc	5.7 mg/Kg	42 ug/L

GP-RR-11	GP-RR-11-SS-2 6'-8'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	1.2J mg/Kg	ND
Chromium	5.3 mg/Kg	ND
Copper	4.0 mg/Kg	ND
Lead	6.5 mg/Kg	72 ug/L
Mercury	0.022J mg/Kg	ND
Nickel	2.1 mg/Kg	ND
Zinc	4.7 mg/Kg	31 ug/L
Hexavalent Chromium	0.26J mg/Kg	ND

GP-RR-10	GP-RR-10-SS-1 0'-2'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Antimony	ND	46J ug/L
Chromium	7.8 mg/Kg	ND
Copper	3.5 mg/Kg	ND
Lead	8.9 mg/Kg	27 ug/L
Mercury	0.061 mg/Kg	ND
Nickel	1.9 mg/Kg	ND
Zinc	11 mg/Kg	59 ug/L

GP-RR-10	GP-RR-10-SS-2 6'-8'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	8.9 mg/Kg	ND
Copper	3.9 mg/Kg	ND
Lead	7.8 mg/Kg	90 ug/L
Mercury	0.013J mg/Kg	ND
Nickel	3.1 mg/Kg	ND
Zinc	7.6 mg/Kg	21 ug/L

GP-RR-9	GP-RR-9-SS-1 0'-2'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	7.8 mg/Kg	ND
Copper	1.7 mg/Kg	ND
Lead	5.9 mg/Kg	13 ug/L
Mercury	0.073 mg/Kg	ND
Nickel	1.8 mg/Kg	ND
Silver	ND	6.3 ug/L
Zinc	4.7 mg/Kg	41 ug/L

GP-RR-9	GP-RR-9-SS-2 6'-8'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	0.92J mg/Kg	ND
Chromium	8.3 mg/Kg	3.8J ug/L
Copper	3.8 mg/Kg	ND
Lead	8.0 mg/Kg	140
Mercury	0.015J mg/Kg	ND
Nickel	2.6 mg/Kg	ND
Zinc	4.9 mg/Kg	30 ug/L

GP-RR-8	GP-RR-8-SS-1 0'-2'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	14 mg/Kg	ND
Copper	3.3 mg/Kg	ND
Lead	8.8 mg/Kg	50 ug/L
Mercury	0.062 mg/Kg	ND
Nickel	2.4 mg/Kg	ND
Selenium	ND	19 ug/L
Zinc	7.7 mg/Kg	20 ug/L
Hexavalent Chromium	1.9 mg/Kg	ND

GP-RR-8	GP-RR-8-SS-2 6'-8'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	10 mg/Kg	ND
Copper	3.5 mg/Kg	ND
Lead	10 mg/Kg	180 ug/L
Mercury	0.016J mg/Kg	ND
Nickel	2.7 mg/Kg	ND
Selenium	ND	ND
Zinc	7.1 mg/Kg	16J ug/L
Hexavalent Chromium	1.3J mg/Kg	ND

GP-16	GP-16-SS-1 0'-2'	
Date	3/22/2011	
Metal Analysis	Total	TCLP
Arsenic	0.97J mg/Kg	NAF

GP-RR-7	GP-RR-7-SS-1 0'-2'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	1.0J mg/Kg	ND
Chromium	7.5 mg/Kg	ND
Copper	2.3 mg/Kg	ND
Lead	6.2 mg/Kg	18 ug/L
Mercury	0.075 mg/Kg	ND
Nickel	1.6 mg/Kg	ND
Zinc	5.3 mg/Kg	42 ug/L

GP-RR-7	GP-RR-7-SS-2 6'-8'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	11 mg/Kg	ND
Copper	4.7 mg/Kg	ND
Lead	8.7 mg/Kg	110 ug/L
Mercury	0.013J mg/Kg	ND
Nickel	2.7 mg/Kg	ND
Zinc	6.2 mg/Kg	31 ug/L

SUBJECT PROPERTY LINE

GP-RR-12 GP-RR-1 GP-RR-11 GP-RR-10 GP-RR-9 GP-RR-8 GP-RR-7

GP-RR-2 GP-RR-3 GP-RR-4 GP-RR-5 GP-RR-6

CONCRETE STORMWATER DRAINAGE DITCH

GP-14 (3-22-11) GP-15 (3-22-11) GP-16 (3-22-11)

GP-RR-12	GP-RR-12-SS-1 0'-2'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	5.5 mg/Kg	9.1 ug/L
Copper	1.5 mg/Kg	ND
Lead	4.5 mg/Kg	28 ug/L
Mercury	0.034 mg/Kg	ND
Nickel	0.92 mg/Kg	ND
Selenium	ND	17 ug/L
Zinc	9.5 mg/Kg	63 ug/L

GP-RR-12	GP-RR-12-SS-2 6'-8'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	6.8 mg/Kg	ND
Copper	2.9 mg/Kg	9.4J ug/L
Lead	6.2 mg/Kg	66 ug/L
Nickel	1.4 mg/Kg	ND
Zinc	5.4 mg/Kg	16 ug/L

GP-14	GP-14-SS-1 0'-2'	
Date	3/22/2011	
Metal Analysis	Total	TCLP
Arsenic	0.65J mg/Kg	NAF

GP-15	GP-15-SS-1 0'-2'	
Date	3/22/2011	
Metal Analysis	Total	TCLP
Arsenic	0.58J mg/Kg	NAF

GP-RR-2	GP-RR-2-SS-1 0'-2'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	5.8 mg/Kg	ND
Copper	1.7 mg/Kg	ND
Lead	4.7 mg/Kg	79 ug/L
Mercury	0.071 mg/Kg	ND
Nickel	1.1 mg/Kg	ND
Zinc	7.5 mg/Kg	17J ug/L
Hexavalent Chromium	0.63J mg/Kg	ND

GP-RR-2	GP-RR-2-SS-2 6'-8'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	7.5 mg/Kg	ND
Copper	4.9 mg/Kg	ND
Lead	7.1 mg/Kg	21 ug/L
Nickel	3.1 mg/Kg	ND
Zinc	8.0 mg/Kg	74 ug/L

GP-RR-3	GP-RR-3-SS-1 0'-2'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	0.89J mg/Kg	ND
Chromium	4.2 mg/Kg	ND
Copper	1.6 mg/Kg	ND
Lead	3.6 mg/Kg	20 ug/L
Mercury	0.024J mg/Kg	ND
Nickel	0.93 mg/Kg	ND
Zinc	5.1 mg/Kg	59 ug/L

GP-RR-3	GP-RR-3-SS-2 6'-8'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	4.0 mg/Kg	5.2J ug/L
Copper	2.9 mg/Kg	ND
Lead	5.1 mg/Kg	120 ug/L
Mercury	0.011J mg/Kg	ND
Nickel	1.9 mg/Kg	ND
Zinc	4.5 mg/Kg	38 ug/L

GP-RR-4	GP-RR-4-SS-1 0'-2'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	6.6 mg/Kg	ND
Copper	2.2 mg/Kg	ND
Lead	5.7 mg/Kg	22 ug/L
Mercury	0.039 mg/Kg	ND
Nickel	1.1 mg/Kg	ND
Zinc	11 mg/Kg	74 ug/L
Hexavalent Chromium	0.64J mg/Kg	ND

GP-RR-4	GP-RR-4-SS-2 6'-8'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	6.4 mg/Kg	3.6J ug/L
Copper	2.8 mg/Kg	ND
Lead	6.8 mg/Kg	95 ug/L
Mercury	0.016J mg/Kg	ND
Nickel	2.2 mg/Kg	ND
Zinc	6.6 mg/Kg	17J ug/L

GP-RR-5	GP-RR-5-SS-1 0'-2'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	5.2 mg/Kg	3.4J ug/L
Copper	2.1 mg/Kg	ND
Lead	4.9 mg/Kg	430 ug/L
Mercury	0.023J mg/Kg	ND
Nickel	1.1 mg/Kg	ND
Zinc	8.8 mg/Kg	68 ug/L

GP-RR-5	GP-RR-5-SS-2 6'-8'	
Date	7/7/2011	
Priority Polluent Metals	TOTAL	TCLP
Arsenic	0.97J mg/Kg	ND
Chromium	9.8 mg/Kg	ND
Copper	4.2 mg/Kg	ND
Lead	8.2 mg/Kg	110 ug/L
Mercury	0.053 mg/Kg	ND
Nickel	2.8 mg/Kg	ND
Zinc	5.1 mg/Kg	41 ug/L

GP-RR-6	GP-RR-6-SS-1 0'-2'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	3.3 mg/Kg	6.6J ug/L
Copper	1.2 mg/Kg	ND
Lead	3.3 mg/Kg	21 ug/L
Mercury	0.027 mg/Kg	ND
Nickel	0.69 mg/Kg	ND
Zinc	7 mg/Kg	61 ug/L
Hexavalent Chromium	1.2J mg/Kg	ND

GP-RR-6	GP-RR-6-SS-2 6'-8'	
Date	7/6/2011	
Priority Polluent Metals	TOTAL	TCLP
Chromium	6.6 mg/Kg	ND
Copper	2.4 mg/Kg	ND
Lead	5.7 mg/Kg	91 ug/L
Mercury	0.016J mg/Kg	ND
Nickel	2.1 mg/Kg	ND
Selenium	ND	16J ug/L
Zinc	5.8 mg/Kg	17J ug/L
Hexavalent Chromium	1.3J mg/Kg	ND

Background	Background 1'- 3'	
Date	7/8/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Arsenic	0.84J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	23 mg/Kg	6.3J ug/L
Hexavalent Chromium	ND	ND
Copper	6.7 mg/Kg	7.7J ug/L
Lead	11 mg/Kg	67 ug/L
Mercury	0.055 mg/Kg	ND
Nickel	2.9 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	8.8 mg/Kg	48 ug/L

BUILDING

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundwater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

ALL LOCATIONS ARE APPROXIMATE

0 50'

GRAPHIC SCALE

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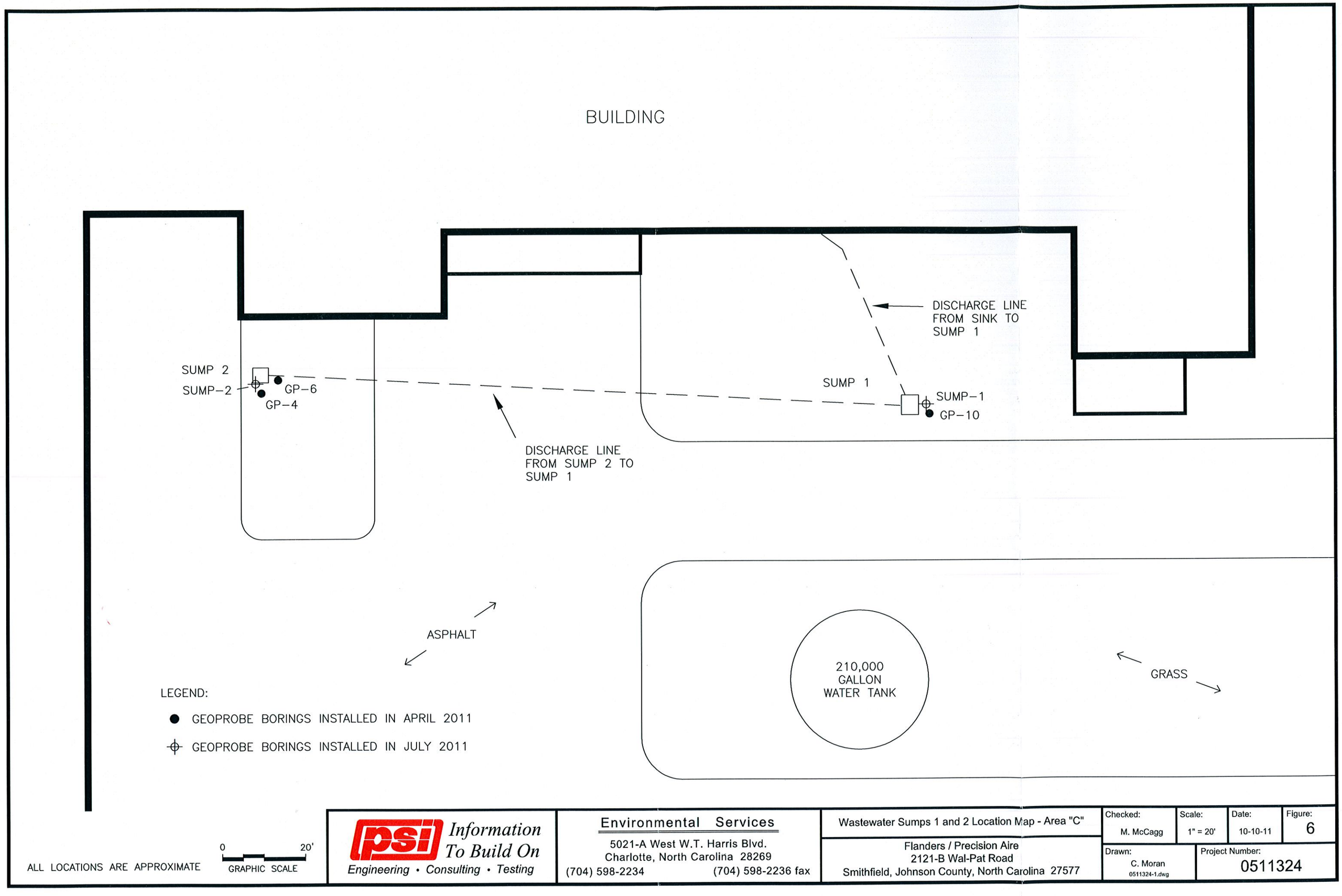
Rail Road Spur - Soil Metals Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	9

Drawn:	Project Number:
C. Moran	0511324
0511324-1.dwg	



ALL LOCATIONS ARE APPROXIMATE

0 20'
GRAPHIC SCALE

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Charlotte, North Carolina 28269
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Wastewater Sumps 1 and 2 Location Map - Area "C"

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	10-10-11	6

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

RESIDENTIAL

WOODED

SUBJECT PROPERTY LINE

50' TYP

GP-RR-12

GP-RR-1

GP-RR-11

GP-14
(3-22-11)

GP-RR-2

GP-RR-10

GP-15
(3-22-11)

GP-RR-3

GP-RR-9

7.5'
TYP

GP-RR-4

11' TYP

GP-RR-8

GP-RR-5

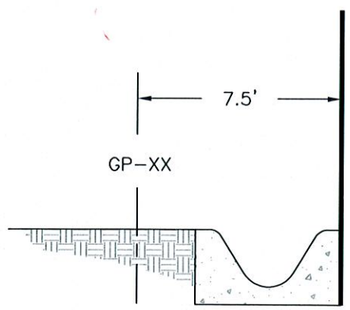
GP-16
(3-22-11)

GP-RR-7

GP-RR-6

CONCRETE STORMWATER
DRAINAGE DITCH

BUILDING



CROSS-SECTION OF
CONCRETE STORMWATER
DRAINAGE DITCH

SCALE: NONE

ALL LOCATIONS ARE APPROXIMATE

0 50'
GRAPHIC SCALE

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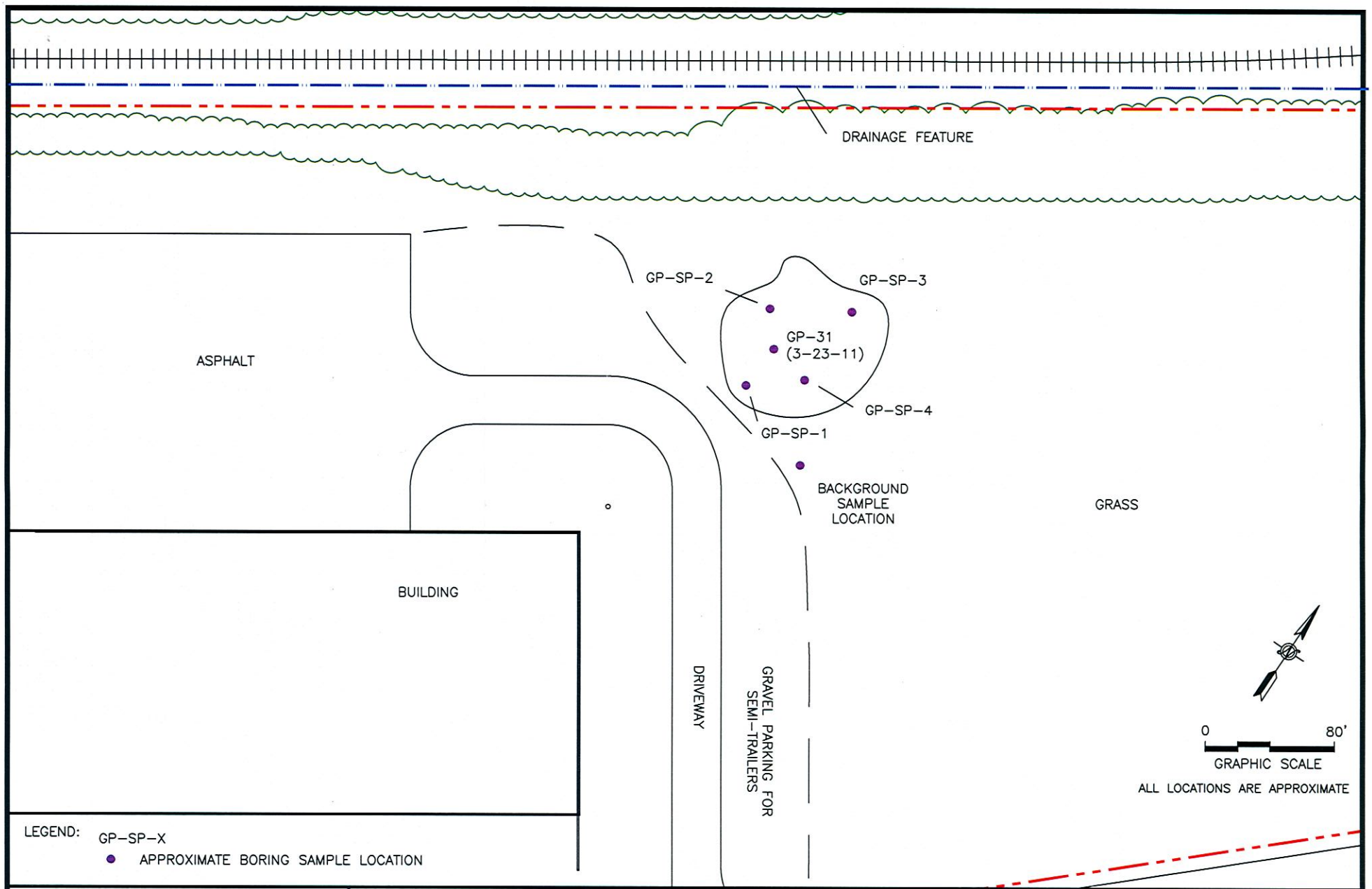
Rail Road Spur Soil Boring Location Map, Area "A"

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	4

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



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Charlotte, North Carolina 28269
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Soil Stockpile Soil Boring Location Map - Area "B"

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 80'	10-10-11	5

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

RESIDENTIAL

WOODED

GP-RR-11	GP-RR-11-SS-1 0'-2'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.0097J	mg/Kg
Methylene Chloride	0.0036J	mg/Kg

GP-RR-11	GP-RR-11-SS-9 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0036J	mg/Kg

GP-RR-3	GP-RR-3-SS-1 0'-2'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0048J	mg/Kg

GP-RR-3	GP-RR-3-SS-2 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0054J	mg/Kg

GP-RR-5	GP-RR-5-SS-1 0'-2'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0039J	mg/Kg

GP-RR-5	GP-RR-5-SS-2 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0038J	mg/Kg

GP-RR-7	GP-RR-7-SS-1 0'-2'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.0073J	mg/Kg
Methylene Chloride	0.0035J	mg/Kg
Naphthalene	0.011	mg/Kg

GP-RR-7	GP-RR-7-SS-2 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0025J	mg/Kg

GP-RR-1	GP-RR-1-SS-1 0'-2'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.0071J	mg/Kg
Methylene Chloride	0.0049J	mg/Kg

GP-RR-1	GP-RR-1-SS-2 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0051J	mg/Kg

GP-RR-10	GP-RR-10-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	0.0057J	mg/Kg
Methylene Chloride	0.00067J	mg/Kg

GP-RR-10	GP-RR-10-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.00089J	mg/Kg

GP-RR-4	GP-RR-4-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0014J	mg/Kg

GP-RR-4	GP-RR-4-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.00086J	mg/Kg

GP-RR-6	GP-RR-6-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0016J	mg/Kg

GP-RR-6	GP-RR-6-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.00097J	mg/Kg

SUBJECT PROPERTY LINE

GP-RR-12 GP-RR-1 GP-RR-11 GP-RR-2 GP-RR-10 GP-RR-3 GP-RR-9 GP-RR-4 GP-RR-8 GP-RR-5 GP-RR-7 GP-RR-6

CONCRETE STORMWATER DRAINAGE DITCH

GP-14 (3-22-11)

GP-15 (3-22-11)

GP-16 (3-22-11)

GP-RR-12	GP-RR-12-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0013J	mg/Kg

GP-RR-12	GP-RR-12-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0014J	mg/Kg

GP-14	GP-14-SS-1 0'-2'	
Date	3/22/2011	
Detected analytes - VOCs		
Not Analyzed For		

GP-15	GP-15-SS-1 0'-2'	
Date	3/22/2011	
Detected analytes - VOCs		
Not Analyzed For		

GP-RR-2	GP-RR-2-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.00072J	mg/Kg

GP-RR-2	GP-RR-2-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0012J	mg/Kg

GP-RR-9	GP-RR-9-SS-1 0'-2'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0039J	mg/Kg

GP-RR-9	GP-RR-7-SS-9 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0033J	mg/Kg

GP-RR-8	GP-RR-8-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.00089J	mg/Kg

GP-RR-8	GP-RR-8-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - VOCs		
Methylene Chloride	0.00098J	mg/Kg

GP-16	GP-16-SS-1 0'-2'	
Date	3/22/2011	
Detected analytes - VOCs		
Not Analyzed For		

BUILDING

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection to Groundw ater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundw ater SRGs

ALL LOCATIONS ARE APPROXIMATE

0 50'

GRAPHIC SCALE

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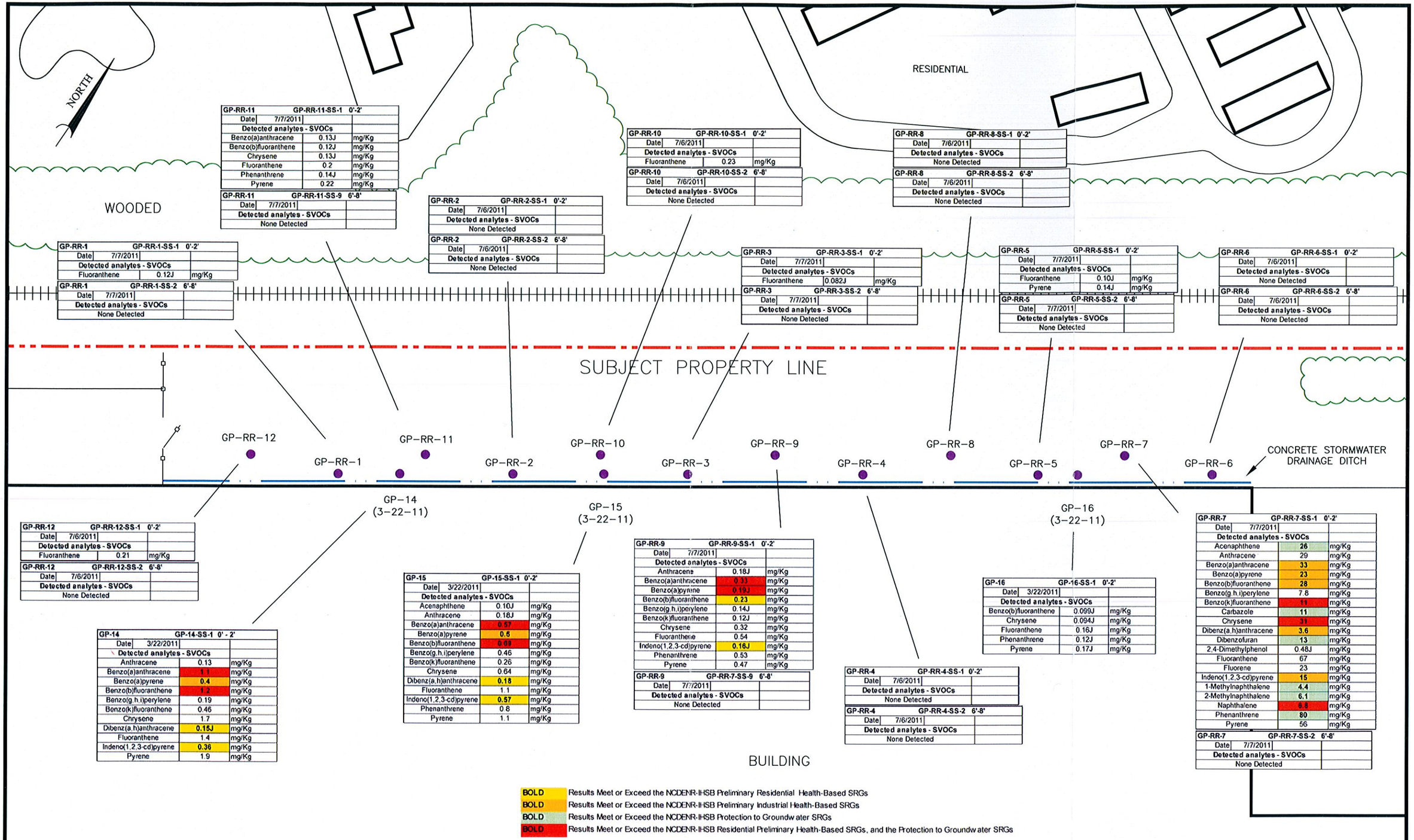
(704) 598-2234 (704) 598-2236 fax

Rail Road Spur - Soil VOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	7

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



GP-RR-11	GP-RR-11-SS-1	0'-2'	
Date	7/7/2011		
Detected analytes - SVOCs			
Benzo(a)anthracene	0.13J	mg/Kg	
Benzo(b)fluoranthene	0.12J	mg/Kg	
Chrysene	0.13J	mg/Kg	
Fluoranthene	0.2	mg/Kg	
Phenanthrene	0.14J	mg/Kg	
Pyrene	0.22	mg/Kg	

GP-RR-11	GP-RR-11-SS-9	6'-8'
Date	7/7/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-1	GP-RR-1-SS-1	0'-2'	
Date	7/7/2011		
Detected analytes - SVOCs			
Fluoranthene	0.12J	mg/Kg	

GP-RR-1	GP-RR-1-SS-2	6'-8'
Date	7/7/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-2	GP-RR-2-SS-1	0'-2'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-2	GP-RR-2-SS-2	6'-8'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-10	GP-RR-10-SS-1	0'-2'	
Date	7/6/2011		
Detected analytes - SVOCs			
Fluoranthene	0.23	mg/Kg	

GP-RR-10	GP-RR-10-SS-2	6'-8'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-3	GP-RR-3-SS-1	0'-2'	
Date	7/7/2011		
Detected analytes - SVOCs			
Fluoranthene	0.082J	mg/Kg	

GP-RR-3	GP-RR-3-SS-2	6'-8'
Date	7/7/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-8	GP-RR-8-SS-1	0'-2'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-8	GP-RR-8-SS-2	6'-8'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-5	GP-RR-5-SS-1	0'-2'	
Date	7/7/2011		
Detected analytes - SVOCs			
Fluoranthene	0.10J	mg/Kg	
Pyrene	0.14J	mg/Kg	

GP-RR-5	GP-RR-5-SS-2	6'-8'
Date	7/7/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-6	GP-RR-6-SS-1	0'-2'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-6	GP-RR-6-SS-2	6'-8'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-12	GP-RR-12-SS-1	0'-2'	
Date	7/6/2011		
Detected analytes - SVOCs			
Fluoranthene	0.21	mg/Kg	

GP-RR-12	GP-RR-12-SS-2	6'-8'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-14	GP-14-SS-1	0' - 2'	
Date	3/22/2011		
Detected analytes - SVOCs			
Anthracene	0.13	mg/Kg	
Benzo(a)anthracene	1.1	mg/Kg	
Benzo(a)pyrene	0.4	mg/Kg	
Benzo(b)fluoranthene	1.2	mg/Kg	
Benzo(g,h,i)perylene	0.19	mg/Kg	
Benzo(k)fluoranthene	0.46	mg/Kg	
Chrysene	1.7	mg/Kg	
Dibenz(a,h)anthracene	0.15J	mg/Kg	
Fluoranthene	1.4	mg/Kg	
Indeno(1,2,3-cd)pyrene	0.36	mg/Kg	
Pyrene	1.9	mg/Kg	

GP-15	GP-15-SS-1	0'-2'	
Date	3/22/2011		
Detected analytes - SVOCs			
Acenaphthene	0.10J	mg/Kg	
Anthracene	0.18J	mg/Kg	
Benzo(a)anthracene	0.57	mg/Kg	
Benzo(a)pyrene	0.5	mg/Kg	
Benzo(b)fluoranthene	0.69	mg/Kg	
Benzo(g,h,i)perylene	0.46	mg/Kg	
Benzo(k)fluoranthene	0.26	mg/Kg	
Chrysene	0.64	mg/Kg	
Dibenz(a,h)anthracene	0.18	mg/Kg	
Fluoranthene	1.1	mg/Kg	
Indeno(1,2,3-cd)pyrene	0.57	mg/Kg	
Phenanthrene	0.8	mg/Kg	
Pyrene	1.1	mg/Kg	

GP-RR-9	GP-RR-9-SS-1	0'-2'	
Date	7/7/2011		
Detected analytes - SVOCs			
Anthracene	0.18J	mg/Kg	
Benzo(a)anthracene	0.33	mg/Kg	
Benzo(a)pyrene	0.19J	mg/Kg	
Benzo(b)fluoranthene	0.23	mg/Kg	
Benzo(g,h,i)perylene	0.14J	mg/Kg	
Benzo(k)fluoranthene	0.12J	mg/Kg	
Chrysene	0.32	mg/Kg	
Fluoranthene	0.54	mg/Kg	
Indeno(1,2,3-cd)pyrene	0.16J	mg/Kg	
Phenanthrene	0.53	mg/Kg	
Pyrene	0.47	mg/Kg	

GP-RR-9	GP-RR-7-SS-9	6'-8'
Date	7/7/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-4	GP-RR-4-SS-1	0'-2'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-RR-4	GP-RR-4-SS-2	6'-8'
Date	7/6/2011	
Detected analytes - SVOCs		
None Detected		

GP-16	GP-16-SS-1	0'-2'	
Date	3/22/2011		
Detected analytes - SVOCs			
Benzo(b)fluoranthene	0.099J	mg/Kg	
Chrysene	0.094J	mg/Kg	
Fluoranthene	0.16J	mg/Kg	
Phenanthrene	0.12J	mg/Kg	
Pyrene	0.17J	mg/Kg	

GP-RR-7	GP-RR-7-SS-1	0'-2'	
Date	7/7/2011		
Detected analytes - SVOCs			
Acenaphthene	26	mg/Kg	
Anthracene	29	mg/Kg	
Benzo(a)anthracene	33	mg/Kg	
Benzo(a)pyrene	23	mg/Kg	
Benzo(b)fluoranthene	28	mg/Kg	
Benzo(g,h,i)perylene	7.8	mg/Kg	
Benzo(k)fluoranthene	11	mg/Kg	
Carbazole	11	mg/Kg	
Chrysene	31	mg/Kg	
Dibenz(a,h)anthracene	3.6	mg/Kg	
Dibenzofuran	13	mg/Kg	
2,4-Dimethylphenol	0.48J	mg/Kg	
Fluoranthene	67	mg/Kg	
Fluorene	23	mg/Kg	
Indeno(1,2,3-cd)pyrene	15	mg/Kg	
1-Methylnaphthalene	4.4	mg/Kg	
2-Methylnaphthalene	6.1	mg/Kg	
Naphthalene	6.8	mg/Kg	
Phenanthrene	80	mg/Kg	
Pyrene	56	mg/Kg	

GP-RR-7	GP-RR-7-SS-2	6'-8'
Date	7/7/2011	
Detected analytes - SVOCs		
None Detected		

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundwater SRGs

ALL LOCATIONS ARE APPROXIMATE

0 50'

GRAPHIC SCALE

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Rail Road Spur - Soil SVOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
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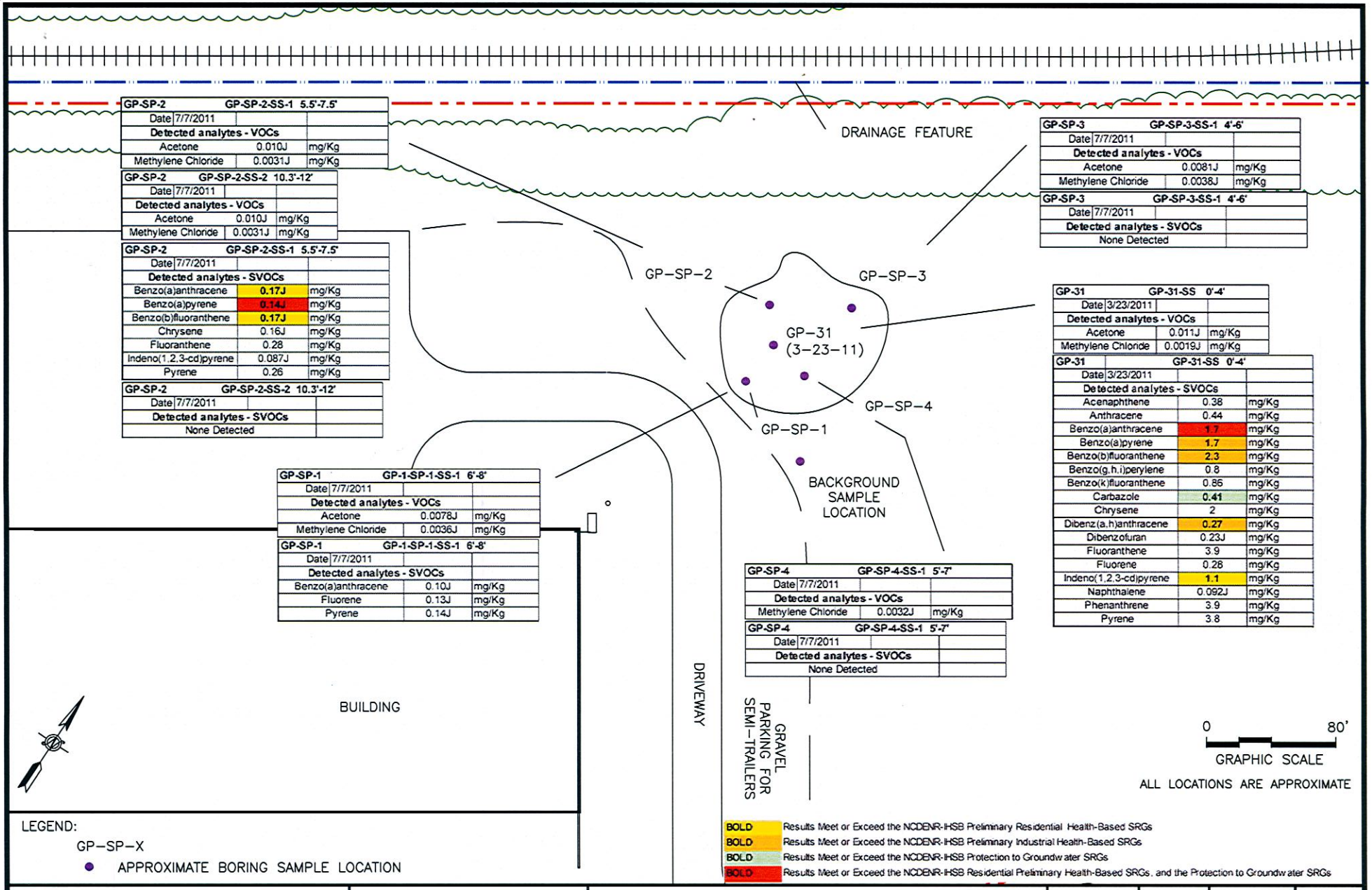
Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	8

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



GP-SP-2	GP-SP-2-SS-1 5.5'-7.5'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.010J	mg/Kg
Methylene Chloride	0.0031J	mg/Kg

GP-SP-2	GP-SP-2-SS-2 10.3'-12'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.010J	mg/Kg
Methylene Chloride	0.0031J	mg/Kg

GP-SP-2	GP-SP-2-SS-1 5.5'-7.5'	
Date	7/7/2011	
Detected analytes - SVOCs		
Benzo(a)anthracene	**0.17J**	mg/Kg
Benzo(a)pyrene	**0.14J**	mg/Kg
Benzo(b)fluoranthene	**0.17J**	mg/Kg
Chrysene	0.16J	mg/Kg
Fluoranthene	0.28	mg/Kg
Indeno(1,2,3-cd)pyrene	0.087J	mg/Kg
Pyrene	0.26	mg/Kg

GP-SP-2	GP-SP-2-SS-2 10.3'-12'
Date	7/7/2011
Detected analytes - SVOCs	
None Detected	

GP-SP-3	GP-SP-3-SS-1 4'-6'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.0081J	mg/Kg
Methylene Chloride	0.0038J	mg/Kg

GP-SP-3	GP-SP-3-SS-1 4'-6'
Date	7/7/2011
Detected analytes - SVOCs	
None Detected	

GP-31	GP-31-SS 0'-4'	
Date	3/23/2011	
Detected analytes - VOCs		
Acetone	0.011J	mg/Kg
Methylene Chloride	0.0019J	mg/Kg

GP-31	GP-31-SS 0'-4'	
Date	3/23/2011	
Detected analytes - SVOCs		
Acenaphthene	0.38	mg/Kg
Anthracene	0.44	mg/Kg
Benzo(a)anthracene	**1.7**	mg/Kg
Benzo(a)pyrene	**1.7**	mg/Kg
Benzo(b)fluoranthene	**2.3**	mg/Kg
Benzo(g,h,i)perylene	0.8	mg/Kg
Benzo(k)fluoranthene	0.86	mg/Kg
Carbazole	**0.41**	mg/Kg
Chrysene	2	mg/Kg
Dibenz(a,h)anthracene	**0.27**	mg/Kg
Dibenzofuran	0.23J	mg/Kg
Fluoranthene	3.9	mg/Kg
Fluorene	0.28	mg/Kg
Indeno(1,2,3-cd)pyrene	**1.1**	mg/Kg
Naphthalene	0.092J	mg/Kg
Phenanthrene	3.9	mg/Kg
Pyrene	3.8	mg/Kg

GP-SP-1	GP-1-SP-1-SS-1 6'-8'	
Date	7/7/2011	
Detected analytes - VOCs		
Acetone	0.0078J	mg/Kg
Methylene Chloride	0.0036J	mg/Kg

GP-SP-1	GP-1-SP-1-SS-1 6'-8'	
Date	7/7/2011	
Detected analytes - SVOCs		
Benzo(a)anthracene	0.10J	mg/Kg
Fluorene	0.13J	mg/Kg
Pyrene	0.14J	mg/Kg

GP-SP-4	GP-SP-4-SS-1 5'-7'	
Date	7/7/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0032J	mg/Kg

GP-SP-4	GP-SP-4-SS-1 5'-7'
Date	7/7/2011
Detected analytes - SVOCs	
None Detected	

LEGEND:

GP-SP-X

● APPROXIMATE BORING SAMPLE LOCATION

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundwater SRGs

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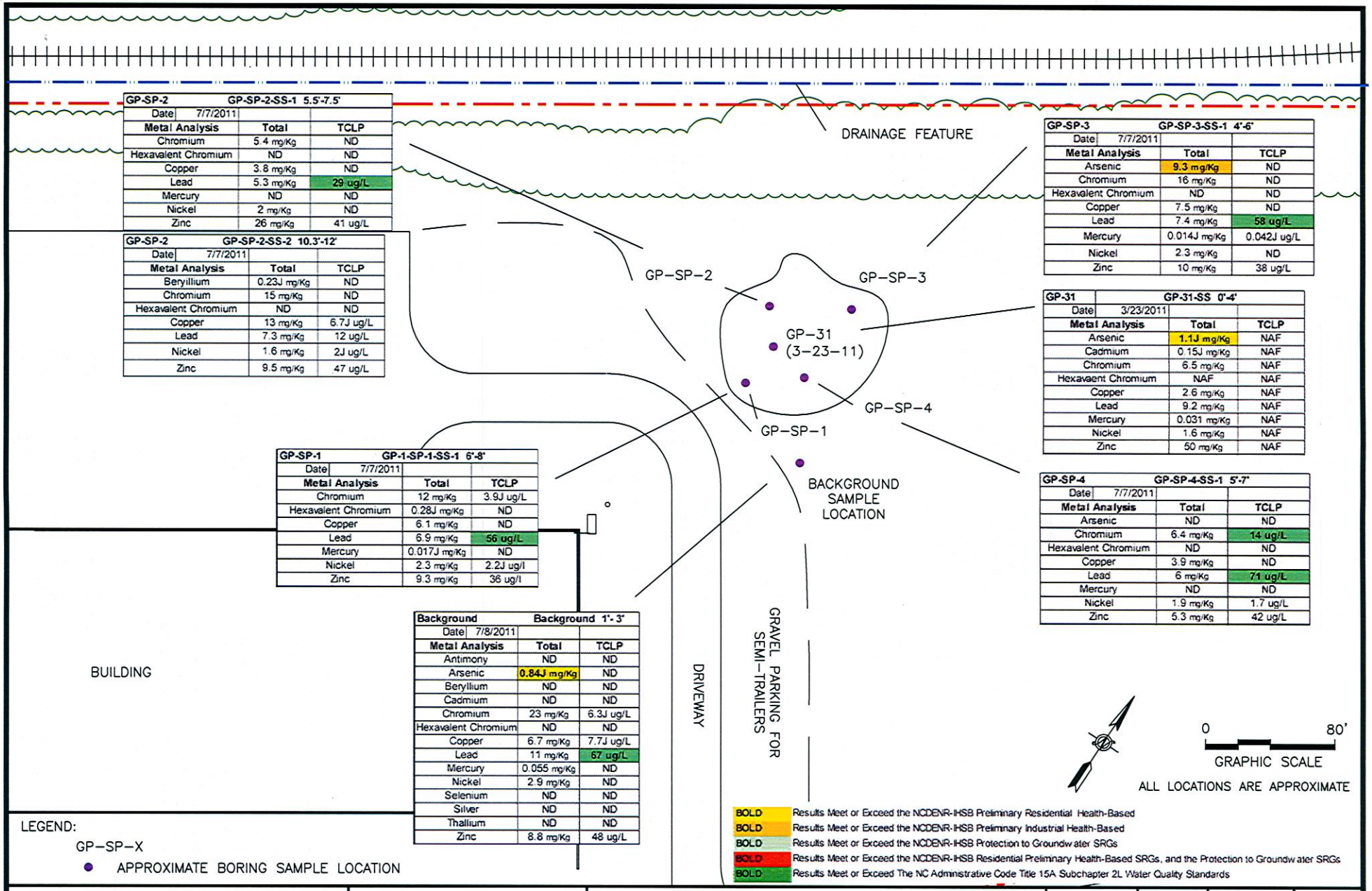
Soil Stockpile - Soil VOC & SVOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 80'	10-10-11	10

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



GP-SP-2	GP-SP-2-SS-1 5.5'-7.5'	
Date	7/7/2011	
Metal Analysis	**Total**	**TCLP**
Chromium	5.4 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	3.8 mg/Kg	ND
Lead	5.3 mg/Kg	29 ug/L
Mercury	ND	ND
Nickel	2 mg/Kg	ND
Zinc	26 mg/Kg	41 ug/L

GP-SP-2	GP-SP-2-SS-2 10.3'-12'	
Date	7/7/2011	
Metal Analysis	**Total**	**TCLP**
Beryllium	0.23J mg/Kg	ND
Chromium	15 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	13 mg/Kg	6.7J ug/L
Lead	7.3 mg/Kg	12 ug/L
Nickel	1.6 mg/Kg	2J ug/L
Zinc	9.5 mg/Kg	47 ug/L

GP-SP-3	GP-SP-3-SS-1 4'-6'	
Date	7/7/2011	
Metal Analysis	**Total**	**TCLP**
Arsenic	9.3 mg/Kg	ND
Chromium	16 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	7.5 mg/Kg	ND
Lead	7.4 mg/Kg	58 ug/L
Mercury	0.014J mg/Kg	0.042J ug/L
Nickel	2.3 mg/Kg	ND
Zinc	10 mg/Kg	38 ug/L

GP-31	GP-31-SS 0'-4'	
Date	3/23/2011	
Metal Analysis	**Total**	**TCLP**
Arsenic	1.1J mg/Kg	NAF
Cadmium	0.15J mg/Kg	NAF
Chromium	6.5 mg/Kg	NAF
Hexavaent Chromium	NAF	NAF
Copper	2.6 mg/Kg	NAF
Lead	9.2 mg/Kg	NAF
Mercury	0.031 mg/Kg	NAF
Nickel	1.6 mg/Kg	NAF
Zinc	50 mg/Kg	NAF

GP-SP-1	GP-1-SP-1-SS-1 6'-8'	
Date	7/7/2011	
Metal Analysis	**Total**	**TCLP**
Chromium	12 mg/Kg	3.9J ug/L
Hexavalent Chromium	0.28J mg/Kg	ND
Copper	6.1 mg/Kg	ND
Lead	6.9 mg/Kg	56 ug/L
Mercury	0.017J mg/Kg	ND
Nickel	2.3 mg/Kg	2.2J ug/l
Zinc	9.3 mg/Kg	36 ug/l

GP-SP-4	GP-SP-4-SS-1 5'-7'	
Date	7/7/2011	
Metal Analysis	**Total**	**TCLP**
Arsenic	ND	ND
Chromium	6.4 mg/Kg	14 ug/L
Hexavalent Chromium	ND	ND
Copper	3.9 mg/Kg	ND
Lead	6 mg/Kg	71 ug/L
Mercury	ND	ND
Nickel	1.9 mg/Kg	1.7 ug/L
Zinc	5.3 mg/Kg	42 ug/L

Background	Background 1'-3'	
Date	7/8/2011	
Metal Analysis	**Total**	**TCLP**
Antimony	ND	ND
Arsenic	0.84J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	23 mg/Kg	6.3J ug/L
Hexavalent Chromium	ND	ND
Copper	6.7 mg/Kg	7.7J ug/L
Lead	11 mg/Kg	67 ug/L
Mercury	0.055 mg/Kg	ND
Nickel	2.9 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	8.8 mg/Kg	48 ug/L

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundwater SRGs
BOLD	Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

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Soil Stockpile - Soil Metals Results

Flanders / Precision Aire
2121-B Wal-Pat Road
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Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 80'	10-10-11	11
Drawn: C. Moran (0511324-1.dwg)	Project Number: 0511324		

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundwater SRGs

BUILDING

DISCHARGE LINE FROM SINK TO SUMP 1

SUMP 2

SUMP-2

GP-6

GP-4

SUMP 1

SUMP-1

GP-10

DISCHARGE LINE FROM SUMP 2 TO SUMP 1

GP-6	GP-6-SS6 2'-4'	
Date	3/22/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0015J	mg/Kg

GP-6	GP-6-SS6 2'-4'	
Date	3/22/2011	
Detected analytes - SVOCs		
None Detected		

GP-4	GP-4-SS 2'-4'	
Date	3/23/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0024J	mg/Kg

GP-4	GP-4-SS 2'-4'	
Date	3/23/2011	
Detected analytes - SVOCs		
Not Analyzed For		

GP-10	GP-10-SS-1 2'-4'	
Date	3/22/2011	
Detected analytes - VOCs		
Methylene Chloride	0.0030J	mg/Kg

GP-10	GP-10-SS-1 2'-4'	
Date	3/22/2011	
Detected analytes - SVOCs		
Not Analyzed For		

SUMP-1	SUMP-1-SS-1 0'-2'	
Date	7/6/2011	
VOCs - Not Analyzed For		

SUMP-1	SUMP-1-SS-2 6'-8'	
Date	7/6/2011	
VOCs - Not Analyzed For		

SUMP-1	SUMP-1-SS-1 0'-2'	
Date	7/6/2011	
Detected analytes - SVOCs		
Not Analyzed For		

SUMP-1	SUMP-1-SS-2 6'-8'	
Date	7/6/2011	
Detected analytes - SVOCs		
Not Analyzed For		

ASPHALT

210,000 GALLON WATER TANK

GRASS

LEGEND:

- ● GEOPROBE BORINGS INSTALLED IN APRIL 2011
- ⊕ GEOPROBE BORINGS INSTALLED IN JULY 2011

ALL LOCATIONS ARE APPROXIMATE

0 20'

GRAPHIC SCALE

psi Information To Build On
Engineering • Consulting • Testing

Environmental Services
5021-A West W.T. Harris Blvd.
Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

Wastewater Sumps - Soil VOC & SVOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	10-10-11	12

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection to Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential Preliminary Health-Based SRGs, and the Protection to Groundwater SRGs
BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

Background	Background 1'- 3'	
Date 7/8/2011		
Metal Analysis	Total	TCLP
Antimony	ND	ND
Arsenic	0.84J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	23 mg/Kg	6.3J ug/L
Hexavalent Chromium	ND	ND
Copper	6.7 mg/Kg	7.7J ug/L
Lead	11 mg/Kg	67 ug/L
Mercury	0.055 mg/Kg	ND
Nickel	2.9 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	8.8 mg/Kg	48 ug/L

BUILDING

DISCHARGE LINE FROM SINK TO SUMP 1

SUMP 2

SUMP-2

GP-6

GP-4

SUMP 1

SUMP-1

GP-10

DISCHARGE LINE FROM SUMP 2 TO SUMP 1

GP-6	GP-6-SS6 2'-4'	
Date 3/22/2011		
Metal Analysis	Total	TCLP
Not Analyzed For		

GP-4	GP-4-SS 2'-4'	
Date 3/23/2011		
Metal Analysis	Total	TCLP
Arsenic	4.8 mg/Kg	NAF
Cadmium	0.11J mg/Kg	NAF
Chromium	8.8 mg/Kg	NAF
Copper	5.6 mg/Kg	NAF
Lead	7.9 mg/Kg	NAF
Mercury	0.033 mg/Kg	NAF
Nickel	2.1 mg/Kg	NAF
Zinc	8.7 mg/Kg	NAF
Hexavalent Chromium	NAF	NAF

GP-10	GP-10-SS-1 2'-4'	
Date 3/22/2011		
Metal Analysis	Total	TCLP
Arsenic	1.4J mg/Kg	NAF
Cadmium	0.31 mg/Kg	NAF
Chromium	17 mg/Kg	NAF
Copper	48 mg/Kg	NAF
Lead	16 mg/Kg	NAF
Mercury	0.034 mg/Kg	NAF
Nickel	3.6 mg/Kg	NAF
Zinc	1,100 mg/Kg	NAF
Hexavalent Chromium	NAF	NAF

SUMP-1	SUMP-1-SS-1 0'-2'	
Date 7/6/2011		
Metal Analysis	Total	TCLP
Antimony	ND	46J ug/L
Cadmium	ND	3.1J ug/L
Chromium	17 mg/Kg	8.8J ug/L
Copper	25 mg/Kg	16 ug/L
Lead	11 mg/Kg	18J ug/L
Mercury	0.036 mg/Kg	ND
Nickel	1.8 mg/Kg	ND
Selenium	ND	16J ug/L
Zinc	63 mg/Kg	490 ug/l
Hexavalent Chromium	0.88 mg/Kg	ND

SUMP-1	SUMP-1-SS-2 6'-8'	
Date 7/6/2011		
Metal Analysis	Total	TCLP
Chromium	9.3 mg/Kg	ND
Copper	3.1 mg/Kg	6.4J ug/L
Lead	8.1 mg/Kg	18 ug/L
Mercury	0.037 mg/Kg	ND
Nickel	2.7 mg/Kg	ND
Selenium	ND	21J ug/L
Zinc	7.1 mg/Kg	20J ug/L
Hexavalent Chromium	ND	ND

ASPHALT

210,000 GALLON WATER TANK

GRASS

LEGEND:

● GEOPROBE BORINGS INSTALLED IN APRIL 2011

⊕ GEOPROBE BORINGS INSTALLED IN JULY 2011

ALL LOCATIONS ARE APPROXIMATE

0 20'
GRAPHIC SCALE

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5021-A West W.T. Harris Blvd.
Charlotte, North Carolina 28269
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Wastewater Sumps - Soil Metals Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	10-10-11	13

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

RESIDENTIAL

WOODED

GP-RR-2	GP-RR-2-GW	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	15J	ug/L
Chloromethane	0.86J	ug/L
Naphthalene	0.25J	ug/L
Toluene	0.32J	ug/L
Trichlorofluoromethane (Freon 11)	0.20J	ug/L
1,2,4-Trimethylbenzene	0.14J	ug/L
m+p Xylene	0.23J	ug/L
o-Xylene	0.10J	ug/L

GP-RR-10	GP-RR-10-GW	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	20J	ug/L
tert-Butyl Alcohol (TBA)	12J	ug/L
Chloromethane	1.4J	ug/L
Toluene	0.28J	ug/L
1,2,4-Trimethylbenzene	0.13J	ug/L
m+p Xylene	0.22J	ug/L
o-Xylene	0.11J	ug/L

GP-RR-8	GP-RR-8-GW	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	7.1J	ug/L
tert-Butyl Alcohol (TBA)	6.4J	ug/L
Chloromethane	0.33J	ug/L
Toluene	0.16J	ug/L
m+p Xylene	0.15J	ug/L

GP-RR-6	GP-RR-6-GW	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	16J	ug/L
Chloromethane	0.34J	ug/L
Methyl tert-Butyl Ether (MTBE)	0.44J	ug/L
Toluene	0.29J	ug/L
1,2,4-Trimethylbenzene	0.15J	ug/L
m+p Xylene	0.29J	ug/L
o-Xylene	0.13J	ug/L

SUBJECT PROPERTY LINE

GP-RR-12 GP-RR-11 GP-RR-10 GP-RR-9 GP-RR-8 GP-RR-7

GP-RR-1 GP-RR-2 GP-RR-3 GP-RR-4 GP-RR-5 GP-RR-6

CONCRETE STORMWATER DRAINAGE DITCH

GP-14 (3-22-11)

GP-15 (3-22-11)

GP-16 (3-22-11)

GP-RR-12	GP-RR-12-GW	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	12J	ug/L
2-Butanone (MEK)	0.95J	ug/L
Chloromethane	2.6	ug/L
Toluene	0.26J	ug/L
1,2,4-Trimethylbenzene	0.11J	ug/L
m+p Xylene	0.21J	ug/L

GP-14	GP-14-GW	
Date	3/22/2011	
Detected analytes - VOCs		
Not Analyzed For		

GP-RR-4	GP-RR-4-GW	
Date	7/6/2011	
Detected analytes - VOCs		
Acetone	24J	ug/L
2-Butanone (MEK)	1.0J	ug/L
tert-Butyl Alcohol (TBA)	7.4J	ug/L
Chloromethane	1.3J	ug/L
Methyl tert-Butyl Ether (MTBE)	0.17J	ug/L
Toluene	0.31J	ug/L
m+p Xylene	0.21J	ug/L

BUILDING

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L

ALL LOCATIONS ARE APPROXIMATE

0 50'
GRAPHIC SCALE

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Rail Road Spur - Groundwater VOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	14

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

RESIDENTIAL

WOODED

GP-RR-10	GP-RR-10-GW		
Date	7/6/2011		
Detected analytes - SVOCs			
Diethylphthalate		3.7J	ug/L

SUBJECT PROPERTY LINE

GP-RR-8	GP-RR-8-GW		
Date	7/6/2011		
Detected analytes - SVOCs			
Diethylphthalate		6.8J	ug/L

GP-RR-6	GP-RR-6-GW		
Date	7/6/2011		
Detected analytes - SVOCs			
Diethylphthalate		9.3J	ug/L

GP-RR-12
GP-RR-1
GP-RR-11
GP-RR-2
GP-RR-10
GP-RR-3
GP-RR-9
GP-RR-4
GP-RR-8
GP-RR-5
GP-RR-7
GP-RR-6

CONCRETE STORMWATER DRAINAGE DITCH

GP-14 (3-22-11)

GP-15 (3-22-11)

GP-16 (3-22-11)

GP-14	GP-14-GW		
Date	3/22/2011		
Detected analytes - SVOCs			
Diethylphthalate		6.8J	ug/L

GP-RR-4	GP-RR-4-GW		
Date	7/6/2011		
Detected analytes - SVOCs			
Diethylphthalate		5.4J	ug/L

BUILDING

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L

ALL LOCATIONS ARE APPROXIMATE

0 50'
GRAPHIC SCALE

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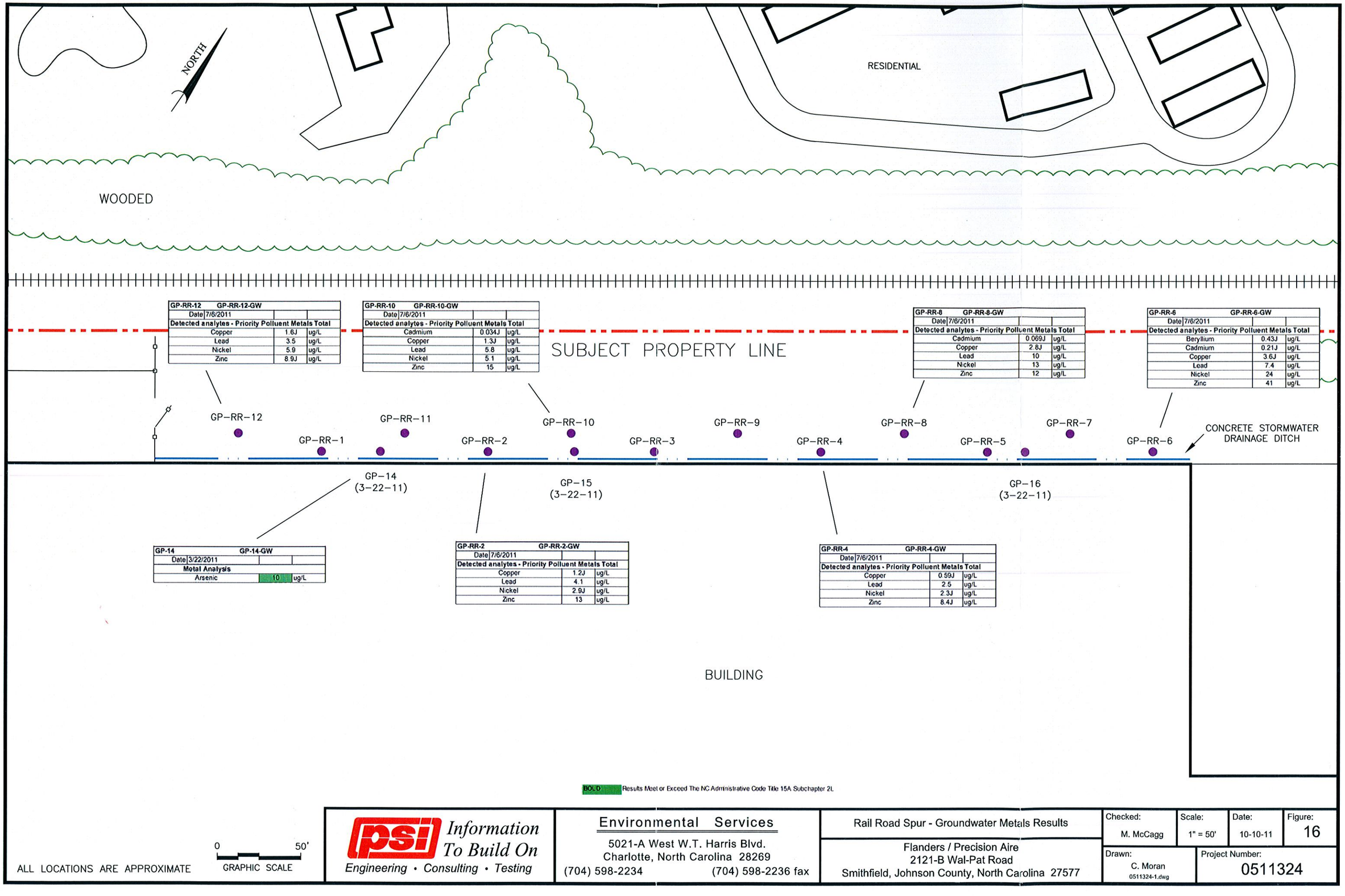
Rail Road Spur - Groundwater SVOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	15

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



GP-RR-12	GP-RR-12-GW		
Date	7/6/2011		
Detected analytes - Priority Polluent Metals Total			
Copper	1.6J	ug/L	
Lead	3.5	ug/L	
Nickel	5.9	ug/L	
Zinc	8.9J	ug/L	

GP-RR-10	GP-RR-10-GW		
Date	7/6/2011		
Detected analytes - Priority Polluent Metals Total			
Cadmium	0.034J	ug/L	
Copper	1.3J	ug/L	
Lead	5.8	ug/L	
Nickel	5.1	ug/L	
Zinc	15	ug/L	

GP-RR-8	GP-RR-8-GW		
Date	7/6/2011		
Detected analytes - Priority Polluent Metals Total			
Cadmium	0.069J	ug/L	
Copper	2.8J	ug/L	
Lead	10	ug/L	
Nickel	13	ug/L	
Zinc	12	ug/L	

GP-RR-6	GP-RR-6-GW		
Date	7/6/2011		
Detected analytes - Priority Polluent Metals Total			
Beryllium	0.43J	ug/L	
Cadmium	0.21J	ug/L	
Copper	3.6J	ug/L	
Lead	7.4	ug/L	
Nickel	24	ug/L	
Zinc	41	ug/L	

GP-14	GP-14-GW		
Date	3/22/2011		
Metal Analysis			
Arsenic	10	ug/L	

GP-RR-2	GP-RR-2-GW		
Date	7/6/2011		
Detected analytes - Priority Polluent Metals Total			
Copper	1.2J	ug/L	
Lead	4.1	ug/L	
Nickel	2.9J	ug/L	
Zinc	13	ug/L	

GP-RR-4	GP-RR-4-GW		
Date	7/6/2011		
Detected analytes - Priority Polluent Metals Total			
Copper	0.59J	ug/L	
Lead	2.5	ug/L	
Nickel	2.3J	ug/L	
Zinc	8.4J	ug/L	

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L

ALL LOCATIONS ARE APPROXIMATE

0 50'
GRAPHIC SCALE

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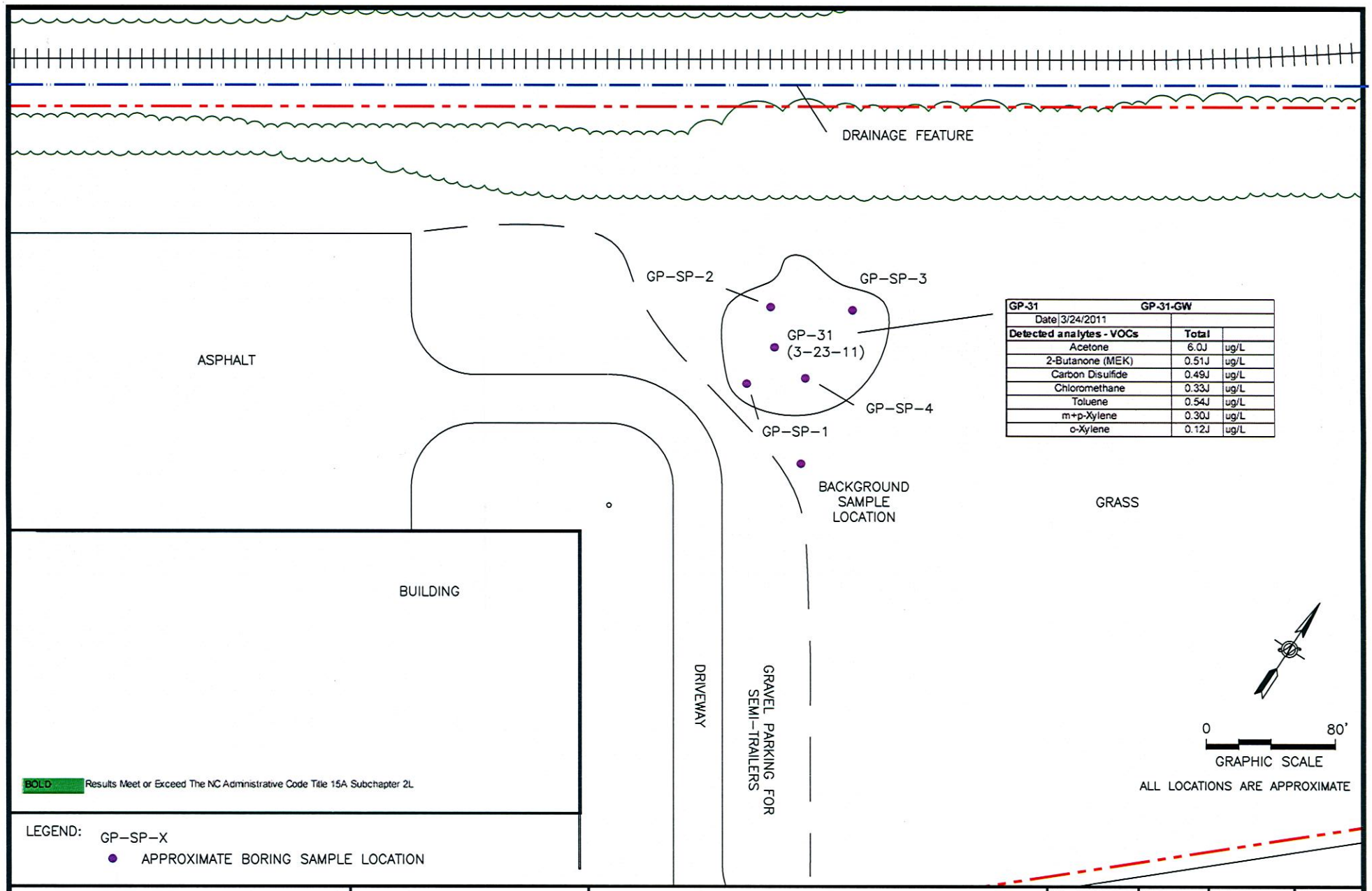
Rail Road Spur - Groundwater Metals Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 50'	10-10-11	16

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



GP-31	GP-31-GW	
Date	3/24/2011	
Detected analytes - VOCs	**Total**	
Acetone	6.0J	ug/L
2-Butanone (MEK)	0.51J	ug/L
Carbon Disulfide	0.49J	ug/L
Chloromethane	0.33J	ug/L
Toluene	0.54J	ug/L
m+p-Xylene	0.30J	ug/L
o-Xylene	0.12J	ug/L

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Charlotte, North Carolina 28269
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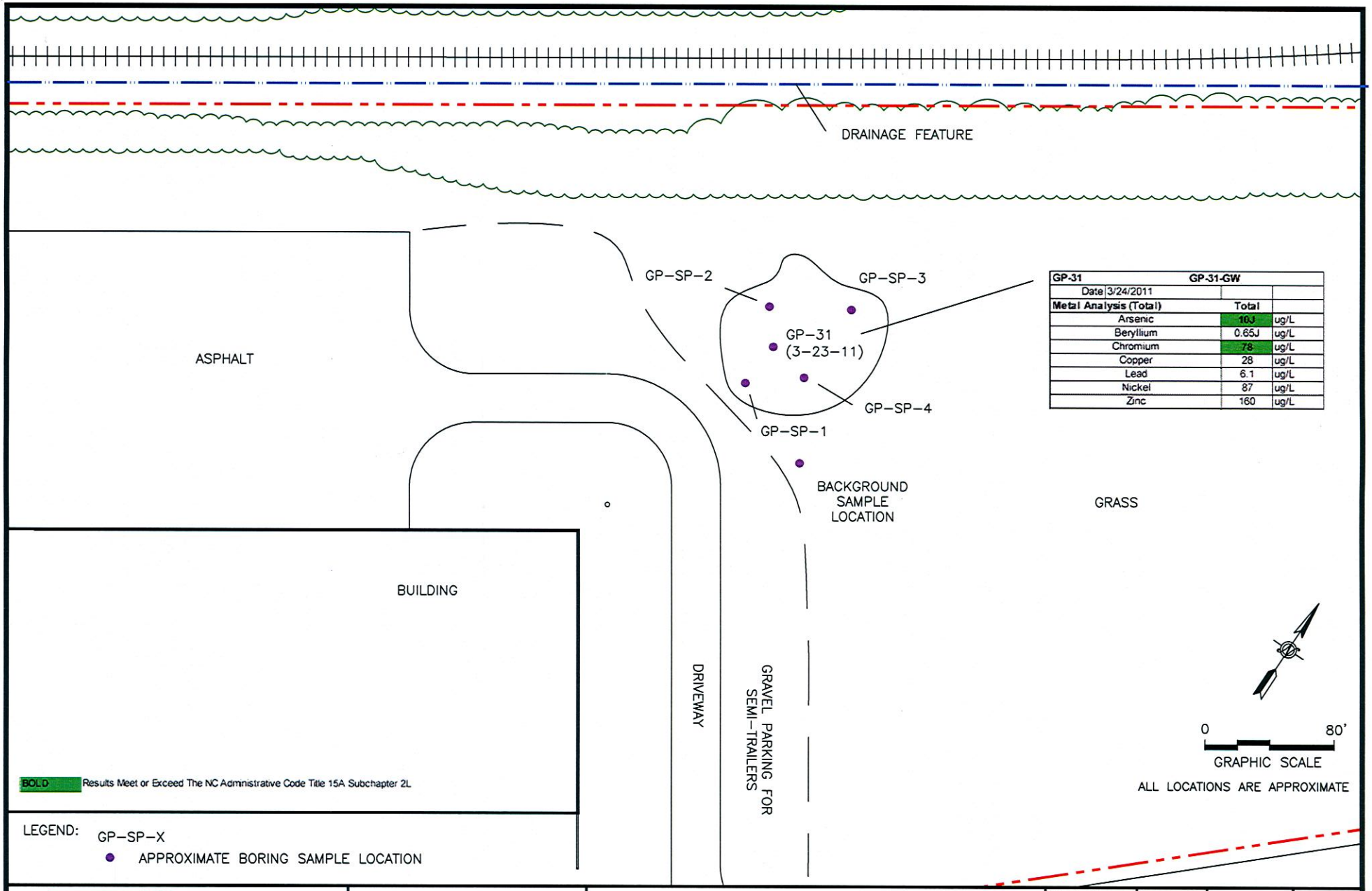
Soil Stockpile - Groundwater VOC & SVOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 80'	10-10-11	17

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



GP-31	GP-31-GW	
Date	3/24/2011	
Metal Analysis (Total)	**Total**	
Arsenic	10J	ug/L
Beryllium	0.65J	ug/L
Chromium	78	ug/L
Copper	28	ug/L
Lead	6.1	ug/L
Nickel	87	ug/L
Zinc	160	ug/L

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Environmental Services
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Soil Stockpile - Groundwater Metals Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 80'	10-10-11	18

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L

BUILDING

SUMP 2

SUMP-2

GP-6

DISCHARGE LINE FROM SUMP 2 TO SUMP 1

DISCHARGE LINE FROM SINK TO SUMP 1

SUMP 1

SUMP-1

GP-10

GP-6	GP-6-GW	
Date	3/23/2011	
Detected analytes - VOCs		
Acetone	1.7J	ug/L
Carbon Disulfide	0.26J	ug/L
1,1-Dichloroethane	4.1	ug/L
1,1-Dichloroethylene	0.59J	ug/L
4-Methyl-2-pentanone (MIBK)	0.32J	ug/L
Toluene	0.23J	ug/L
1,1,1-Trichloroethane	3.8	ug/L
m+p Xylene	0.17J	ug/L
1,4-Dichlorobenzene	0.72J	ug/L

GP-10	GP-10-GW	
Date	3/23/2011	
Detected analytes - VOCs		
Acetone	2.6J	ug/L
Carbon Disulfide	0.25J	ug/L
Chloroform	0.12J	ug/L
1,1-Dichloroethane	1.8	ug/L
1,1-Dichloroethylene	0.53J	ug/L
Toluene	0.21J	ug/L
Trichlorofluoromethane	8.7	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	0.84J	ug/L

ASPHALT

210,000 GALLON WATER TANK

GRASS

LEGEND:

- ● GEOPROBE BORINGS INSTALLED IN APRIL 2011
- ⊕ GEOPROBE BORINGS INSTALLED IN JULY 2011

ALL LOCATIONS ARE APPROXIMATE

0 20'

GRAPHIC SCALE

psi *Information To Build On*

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Environmental Services

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Wastewater Sumps 1 and 2
Groundwater VOC & SVOC Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	10-10-11	19

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L

LEGEND:

- ● GEOPROBE BORINGS INSTALLED IN APRIL 2011
- ⊕ GEOPROBE BORINGS INSTALLED IN JULY 2011

BUILDING

SUMP 2

SUMP-2

GP-6

DISCHARGE LINE FROM SUMP 2 TO SUMP 1

DISCHARGE LINE FROM SINK TO SUMP 1

SUMP 1

SUMP-1

GP-10

Sump-2	Sump-2-GW	
Date	7/7/2011	
Metal Analysis (Total)	**Total**	
Arsenic	9.3J	ug/L
Beryllium	1.3	ug/L
Cadmium	0.15J	ug/L
Chromium	11	ug/L
Copper	20	ug/L
Lead	490	ug/L
Mercury	0.059J	ug/L
Nickel	16	ug/L
Thallium	0.22	ug/L
Zinc	73	ug/L

Sump-2	Sump-2-GW	
Date	7/7/2011	
Metal Analysis (Dissolved)	**Total**	
Antimony	0.40J	ug/L
Copper	0.75J	ug/L
Lead	2.3	ug/L
Nickel	9.9	ug/L
Zinc	220	ug/L

GP-6	GP-6-GW	
Date	3/23/2011	
Metal Analysis	**Total**	
Arsenic	12	ug/L
Chromium	4.4J	ug/L
Copper	2.6J	ug/L
Lead	3.4J	ug/L
Nickel	2.9J	ug/L

GP-10	GP-10-GW	
Date	3/23/2011	
Metal Analysis	**Total**	
Arsenic	12	ug/L
Chromium	5.3J	ug/L
Copper	2.7J	ug/L
Lead	5.3	ug/L
Nickel	3.8J	ug/L
Selenium	1.4J	ug/L

Sump-1	Sump-1-GW	
Date	7/7/2011	
Metal Analysis (Total)	**Total**	
Arsenic	<8.6	ug/L
Beryllium	<0.090	ug/L
Cadmium	<0.026	ug/L
Chromium	<3.4	ug/L
Copper	2.4	ug/L
Lead	11	ug/L
Mercury	<0.04	ug/L
Nickel	5.3	ug/L
Thallium	0.22	ug/L
Zinc	21	ug/L

Sump-1	Sump-1-GW	
Date	7/7/2011	
Metal Analysis (Dissolved)	**Total**	
Copper	1.4J	ug/L
Lead	3	ug/L
Nickel	4.3J	ug/L
Zinc	9.2J	ug/L

210,000 GALLON WATER TANK

GRASS

ALL LOCATIONS ARE APPROXIMATE

0 20'

GRAPHIC SCALE

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Charlotte, North Carolina 28269
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Wastewater Sumps 1 and 2
Groundwater Metals Results

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	10-10-11	20

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

SUBJECT PROPERTY LINE

GP-RR-1

GP-RR-11

10.5'

11.5'

GP-14
EXCAVATION

GP-RR-2

GP-RR-10

10'

10'

GP-15
EXCAVATION

GP-RR-3

GP-RR-9

CONCRETE STORMWATER
DRAINAGE DITCH

GP-RR-4

GP-RR-8

GP-RR-5

GP-RR-7
EXCAVATION

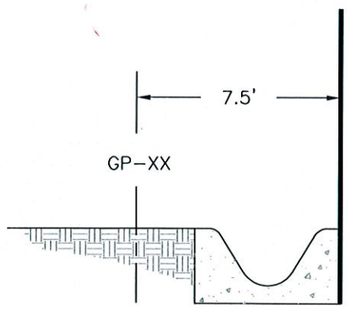
24'

7'

12'

10'

GP-16
(3-22-11)



CROSS-SECTION OF
CONCRETE STORMWATER
DRAINAGE DITCH

SCALE: NONE

ALL LOCATIONS ARE APPROXIMATE

0 30'
GRAPHIC SCALE

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5021-A West W.T. Harris Blvd.
Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

Areas of Soil Excavation along Rail Road Spur

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

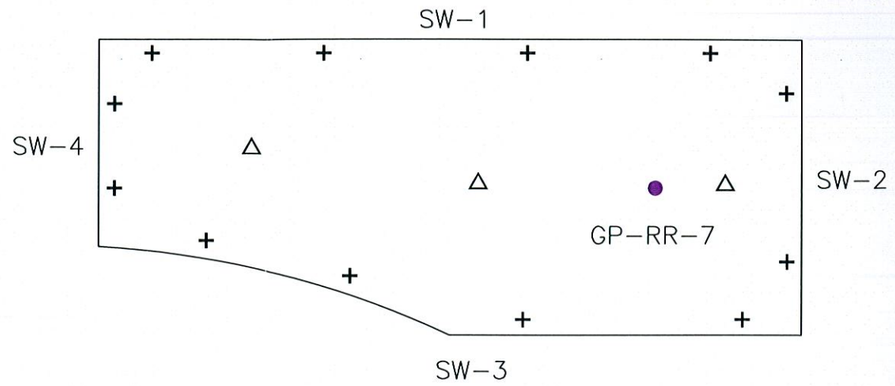
Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 30'	11-23-11	21

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

ON-SITE FIRE SYSTEM ——— — — — WTR— — — — WTR— — — — WTR— — — — WTR— — — — WTR———

——— — — — SAN— — — — SAN— — — — SAN— — — — SAN— — — — SAN———

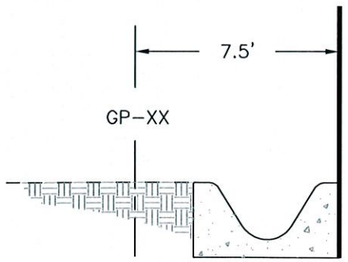


GP-RR-5

GP-16

CONCRETE STORMWATER DRAINAGE DITCH

BUILDING



CROSS-SECTION OF CONCRETE STORMWATER DRAINAGE DITCH

SCALE: NONE

ALL LOCATIONS ARE APPROXIMATE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

0 5'
GRAPHIC SCALE

psi Information To Build On
Engineering • Consulting • Testing

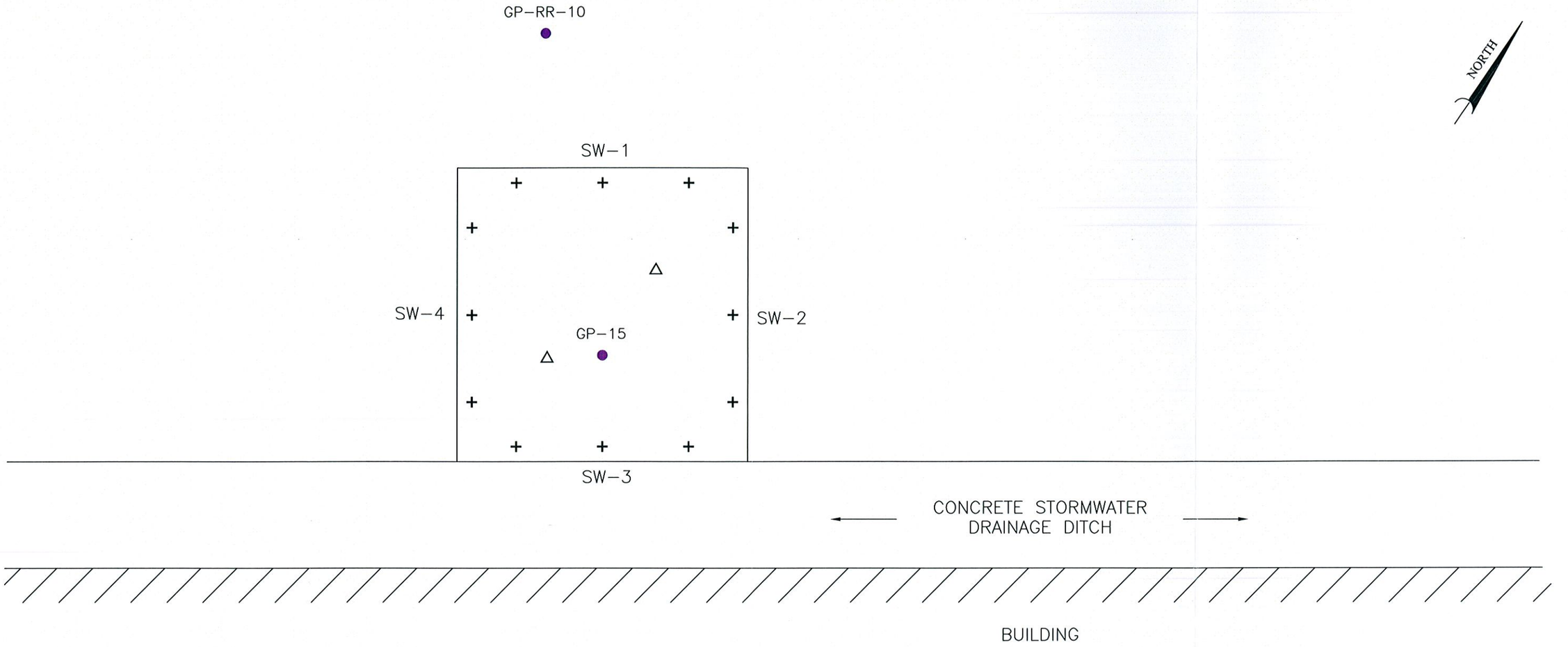
Environmental Services
5021-A West W.T. Harris Blvd.
Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

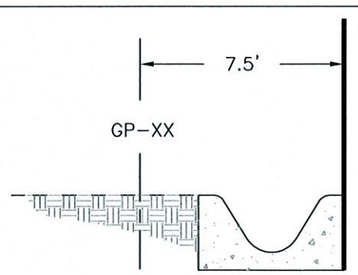
Soil ALIQUOT Location Map / Excavation GP-RR-7

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	11-23-11	22

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324





CROSS-SECTION OF
CONCRETE STORMWATER
DRAINAGE DITCH

SCALE: NONE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

ALL LOCATIONS ARE APPROXIMATE

0 5'

GRAPHIC SCALE

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Soil ALIQUOT Location Map / Excavation GP-15

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	11-23-11	23

Drawn: C. Moran 0511324-1.dwg

Project Number: 0511324

NORTH

GP-RR-11

SW-1

SW-4

SW-2

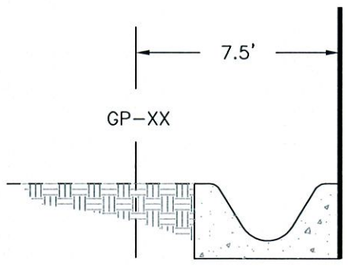
GP-RR-1

GP-14

SW-3

CONCRETE STORMWATER
DRAINAGE DITCH

BUILDING



CROSS-SECTION OF
CONCRETE STORMWATER
DRAINAGE DITCH

SCALE: NONE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

ALL LOCATIONS ARE APPROXIMATE

0 5'
GRAPHIC SCALE

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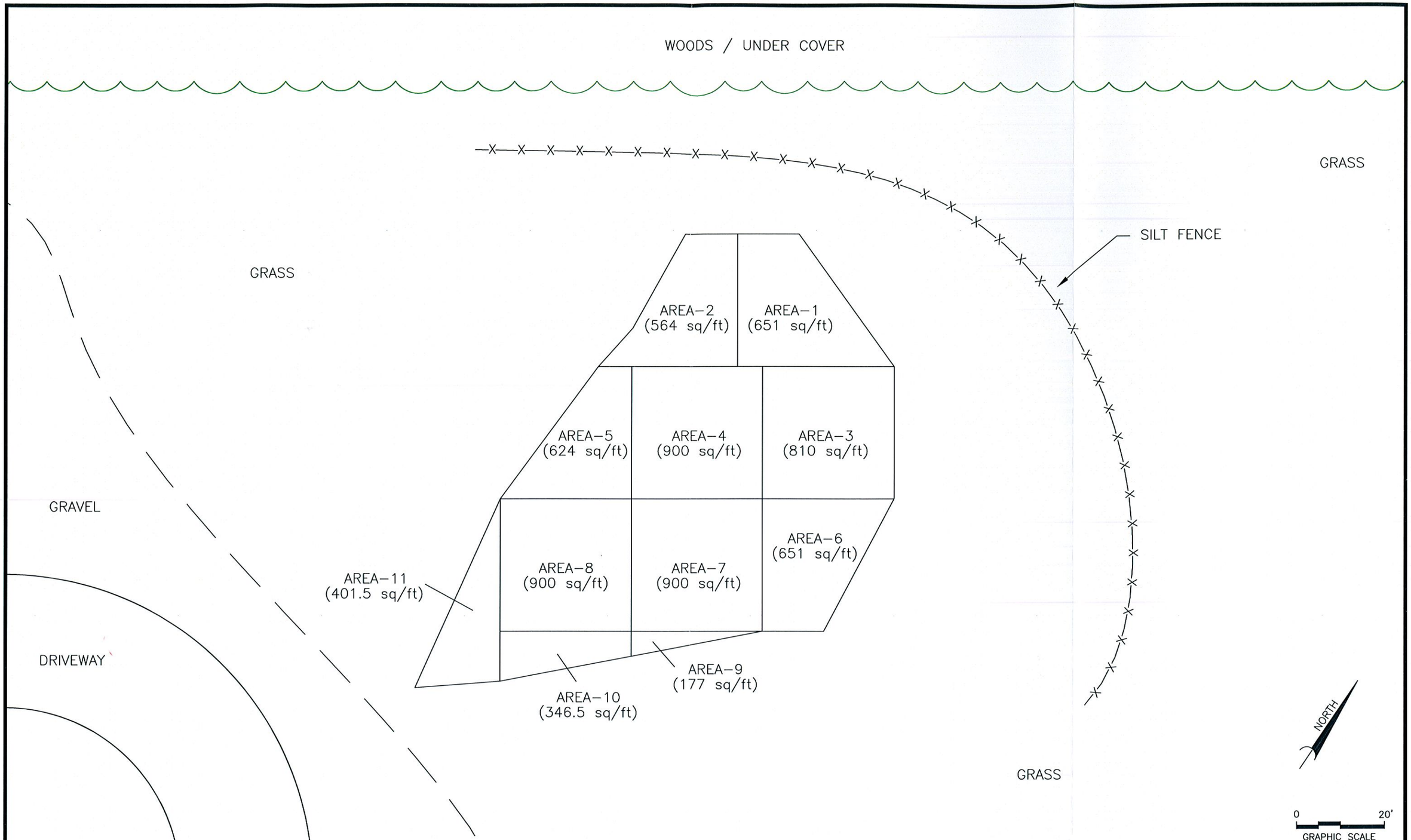
Soil ALIQUOT Location Map / Excavation GP-14

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	11-23-11	24

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



ALL sq/ft CALCULATIONS ARE APPROXIMATE
ALL LOCATIONS ARE APPROXIMATE

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Sampling Grid / Soil Stockpile

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	11-17-11	25

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

WOODS / UNDER COVER

GRASS

SILT FENCE

GRASS

AREA–2

AREA–1

AREA–4

AREA–5

AREA–3

AREA–8

AREA–7

AREA–6

AREA–11

AREA–9

AREA–10

GRAVEL

DRIVEWAY

GRASS

NORTH

LEGEND:

+ ALIQUOT LOCATION FOR COMPOSITE SAMPLE–1

• ALIQUOT LOCATION FOR COMPOSITE SAMPLE–2

0 20'

GRAPHIC SCALE

ALL LOCATIONS ARE APPROXIMATE

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(704) 598-2234 (704) 598-2236 fax

Soil ALIQUOTs Location Map / Soil Stockpile

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	11-17-11	26

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

RR-7	RR-7-SW-1	
Date	11/17/2011	
Detected analytes - VOCs		
Acetone	ND	mg/Kg
Methylene Chloride	ND	mg/Kg
Naphthalene	0.0013J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

ON-SITE FIRE SYSTEM ——— WTR ——— WTR ——— WTR ——— WTR ———

——— SAN ——— SAN ——— SAN ——— SAN ———

SW-1

SW-4

RR-7	RR-7-SW-4	
Date	11/17/2011	
Detected analytes - VOCs		
Acetone	ND	mg/Kg
Methylene Chloride	ND	mg/Kg
Naphthalene	0.00088J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

GP-RR-7

SW-2

RR-7	RR-7-SW-2	
Date	11/17/2011	
Detected analytes - VOCs		
Acetone	0.0088J	mg/Kg
Methylene Chloride	ND	mg/Kg
Naphthalene	0.0013J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

SW-3

RR-7	RR-7-SW-3	
Date	11/17/2011	
Detected analytes - VOCs		
Acetone	0.0069J	mg/Kg
Methylene Chloride	ND	mg/Kg
Naphthalene	ND	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

RR-7	RR-7-FL-1	
Date	11/17/2011	
Detected analytes - VOCs		
Acetone	ND	mg/Kg
Methylene Chloride	ND	mg/Kg
Naphthalene	ND	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

GP-RR-5

GP-16

CONCRETE STORMWATER DRAINAGE DITCH

BUILDING

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
BOLD	Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results were below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

SVOCs = Semi-Volatile Organic Compounds

0 5'

GRAPHIC SCALE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

ALL LOCATIONS ARE APPROXIMATE

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(704) 598-2234 (704) 598-2236 fax

GP-RR-7 Excavation, Soil Results VOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-12-11	27

Drawn: C. Moran 0511324-1.dwg

Project Number: 0511324

NORTH

RR-7	RR-7-SW-1
Date	11/17/2011
Detected analytes - SVOCs	
Acenaphthene	7.2 mg/Kg
Anthracene	9.6 mg/Kg
Benzo(a)anthracene	13 mg/Kg
Benzo(a)pyrene	8.8J mg/Kg
Benzo(b)fluoranthene	9.8 mg/Kg
Benzo(g,h,i)perylene	4.3 mg/Kg
Benzo(k)flouranthene	4.3 mg/Kg
Carbazole	4.2 mg/Kg
Chrysene	13 mg/Kg
Dibenz(a,h)anthracene	1.9 mg/Kg
Dibenzofuran	3.3 mg/Kg
Fluoranthene	22 mg/Kg
Fluorene	5.5 mg/kg
Indeno(1,2,3-cd)pyrene	6.1 mg/Kg
1-Methylnaphthalene	1 mg/Kg
2-Methylnaphthalene	1.4 mg/Kg
Naphthalene	2.1 mg/Kg
Phenanthrene	35 mg/Kg
Pyrene	21 mg/Kg
Detected analytes - TCLP SVOCs	
None Detected	

ON-SITE FIRE SYSTEM

WTR — WTR — WTR — WTR

SAN — SAN — SAN — SAN — SAN

SW-1

SW-4

SW-2

SW-3

GP-RR-7

GP-RR-5

RR-7	RR-7-SW-4
Date	11/17/2011
Detected analytes - SVOCs	
Acenaphthene	2.5 mg/Kg
Anthracene	3.7 mg/Kg
Benzo(a)anthracene	7.4 mg/Kg
Benzo(a)pyrene	6.5 mg/Kg
Benzo(b)fluoranthene	6.6 mg/Kg
Benzo(g,h,i)perylene	4.7 mg/Kg
Benzo(k)flouranthene	2.8 mg/Kg
Carbazole	2.4mg/Kg
Chrysene	8.1 mg/Kg
Dibenz(a,h)anthracene	1.3 mg/Kg
Dibenzofuran	1.3 mg/Kg
Fluoranthene	19 mg/Kg
Fluorene	2.2 mg/kg
Indeno(1,2,3-cd)pyrene	5.3 mg/Kg
1-Methylnaphthalene	0.27 mg/Kg
2-Methylnaphthalene	0.37 mg/Kg
Naphthalene	0.60 mg/Kg
Phenanthrene	20 mg/Kg
Pyrene	17 mg/Kg
Detected analytes - TCLP SVOCs	
None Detected	

RR-7	RR-7-SW-3
Date	11/17/2011
Detected analytes - SVOCs	
None Detected	
Detected analytes - TCLP SVOCs	
None Detected	

RR-7	RR-7-FL-1
Date	11/17/2011
Detected analytes - SVOCs	
Acenaphthene	ND
Anthracene	ND
Benzo(a)anthracene	0.12J mg/Kg
Benzo(a)pyrene	0.17J mg/Kg
Benzo(b)fluoranthene	0.21 mg/Kg
Benzo(g,h,i)perylene	ND
Benzo(k)flouranthene	ND
Carbazole	ND
Chrysene	0.14J mg/Kg
Dibenz(a,h)anthracene	ND
Dibenzofuran	ND
Fluoranthene	0.19J mg/Kg
Fluorene	ND
Indeno(1,2,3-cd)pyrene	ND
1-Methylnaphthalene	ND
2-Methylnaphthalene	ND
Naphthalene	ND
Phenanthrene	0.17J mg/Kg
Pyrene	0.14J mg/Kg
Detected analytes - TCLP SVOCs	
None Detected	

RR-7	RR-7-SW-2
Date	11/17/2011
Detected analytes - SVOCs	
Acenaphthene	0.43 mg/Kg
Anthracene	0.64 mg/Kg
Benzo(a)anthracene	1.2 mg/Kg
Benzo(a)pyrene	0.86 mg/Kg
Benzo(b)fluoranthene	1 mg/Kg
Benzo(g,h,i)perylene	0.46 mg/Kg
Benzo(k)flouranthene	0.42 mg/Kg
Carbazole	0.26 mg/Kg
Chrysene	1.2 mg/Kg
Dibenz(a,h)anthracene	0.18J mg/Kg
Dibenzofuran	0.17J mg/Kg
Fluoranthene	2.3 mg/Kg
Fluorene	0.34 mg/kg
Indeno(1,2,3-cd)pyrene	0.65 mg/Kg
1-Methylnaphthalene	ND
2-Methylnaphthalene	ND
Naphthalene	ND
Phenanthrene	2.1 mg/Kg
Pyrene	1.8 mg/Kg
Detected analytes - TCLP SVOCs	
None Detected	

CONC D

BUILDING

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results were below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

SVOCs = Semi-Volatile Organic Compounds

0 5'

GRAPHIC SCALE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

ALL LOCATIONS ARE APPROXIMATE

psi *Information To Build On*

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Environmental Services

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Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

GP-RR-7 Excavation, Soil Results SVOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-12-11	28

Drawn: C. Moran 0511324-1.dwg

Project Number: 0511324

NORTH

ON-SITE FIRE SYSTEM

WTR

SAN

RR-7	RR-7-SW-1	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	10 mg/Kg	ND
Hexavalent Chromium	0.73 mg/Kg	3.5J µg/L
Copper	2.9 mg/Kg	ND
Lead	7.3 mg/Kg	2 µg/L
Mercury	0.022J mg/Kg	ND
Nickel	1.7 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	5.2 mg/Kg	14J µg/L

SW-1

SW-4

SW-2

GP-RR-7

SW-3

RR-7	RR-7-SW-4	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6.6 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	1.8 mg/Kg	ND
Lead	7.1 mg/Kg	6J
Mercury	0.025J mg/Kg	ND
Nickel	1.3 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	4.4 mg/Kg	ND

RR-7	RR-7-SW-2	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	8 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	3 mg/Kg	ND
Lead	6.9 mg/Kg	39 µg/L
Mercury	0.026J mg/Kg	ND
Nickel	2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	4.8 mg/Kg	12J µg/L

GP-RR-5

GP-16

RR-7	RR-7-SW-3	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	9.6 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	1.5 mg/Kg	ND
Lead	6.4 mg/Kg	18 µg/L
Mercury	0.031 mg/Kg	ND
Nickel	1.6 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	4.4 mg/Kg	ND

RR-7	RR-7-FL-1	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	11 mg/Kg	ND
Hexavalent Chromium	ND	3.5J µg/L
Copper	2.3 mg/Kg	ND
Lead	5.9 mg/Kg	9J µg/L
Mercury	0.049 mg/Kg	ND
Nickel	1.6 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	3.9 mg/Kg	ND

CONCRE
DRA

BUILDING

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results were below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

SVOCs = Semi-Volatile Organic Compounds

0 5'
GRAPHIC SCALE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

ALL LOCATIONS ARE APPROXIMATE

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Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

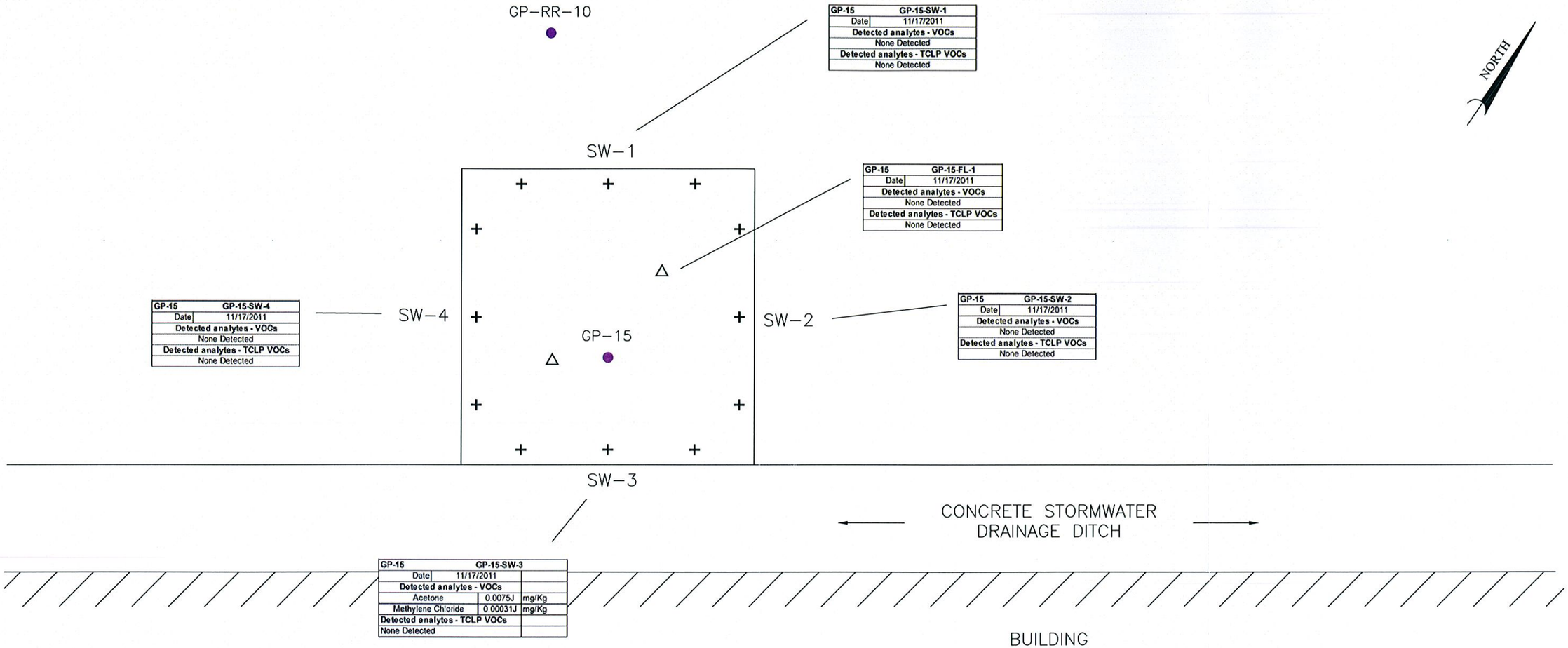
GP-RR-7 Excavation, Soil Results Metals (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-12-11	29

Drawn: C. Moran 0511324-1.dwg

Project Number: 0511324



ALL LOCATIONS ARE APPROXIMATE

0 5'
GRAPHIC SCALE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
BOLD	Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms
µg/L = mircograms per Liter
ND = non-detect (Results were below the method detection limits)
TCLP = Toxicity Characteristic Leaching Procedure

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Charlotte, North Carolina 28269
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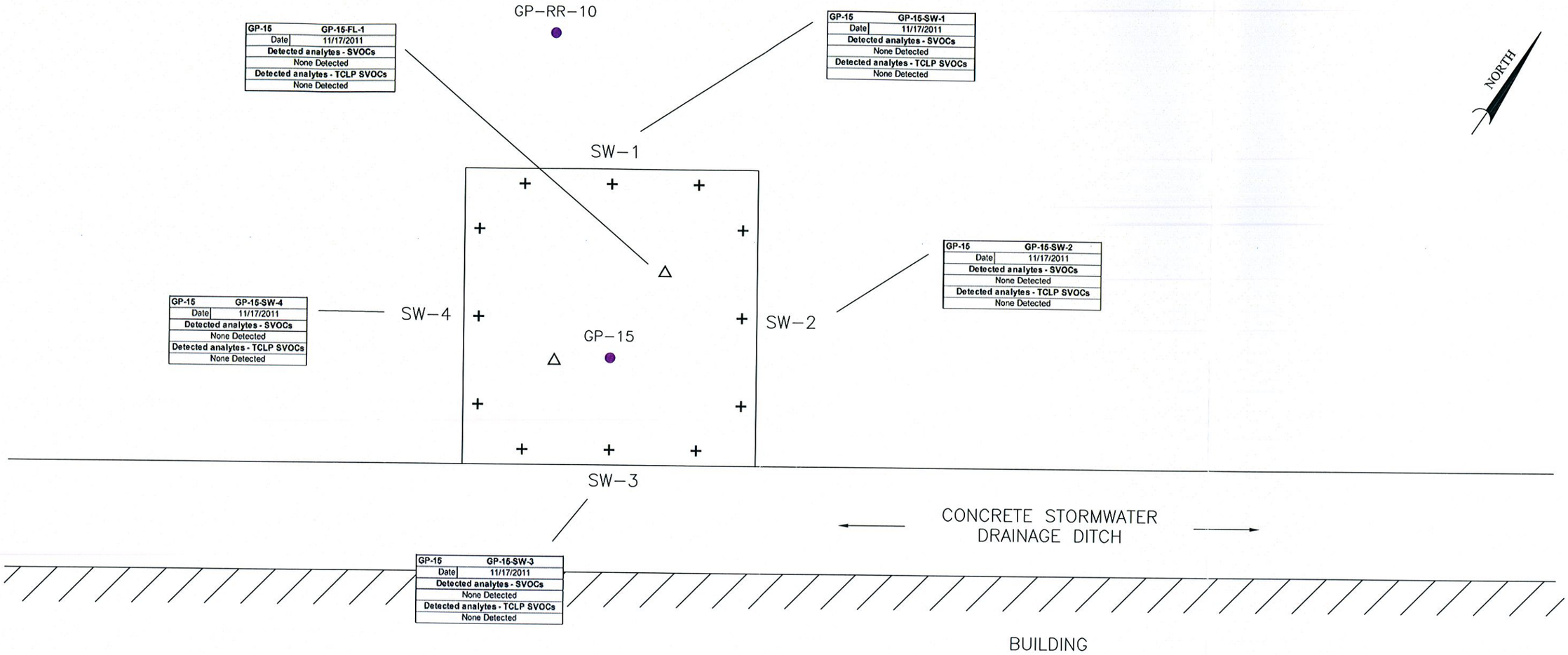
Excavation GP-15, Soil Results VOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-16-11	30

Drawn: C. Moran 0511324-1.dwg

Project Number: 0511324



ALL LOCATIONS ARE APPROXIMATE

0 5'
GRAPHIC SCALE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection of Groundw ater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundw ater SRGs
BOLD	Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms
µg/L = mircograms per Liter
ND = non-detect (Results w ere below the method detection limits)
TCLP = Toxicity Characteristic Leaching Procedure

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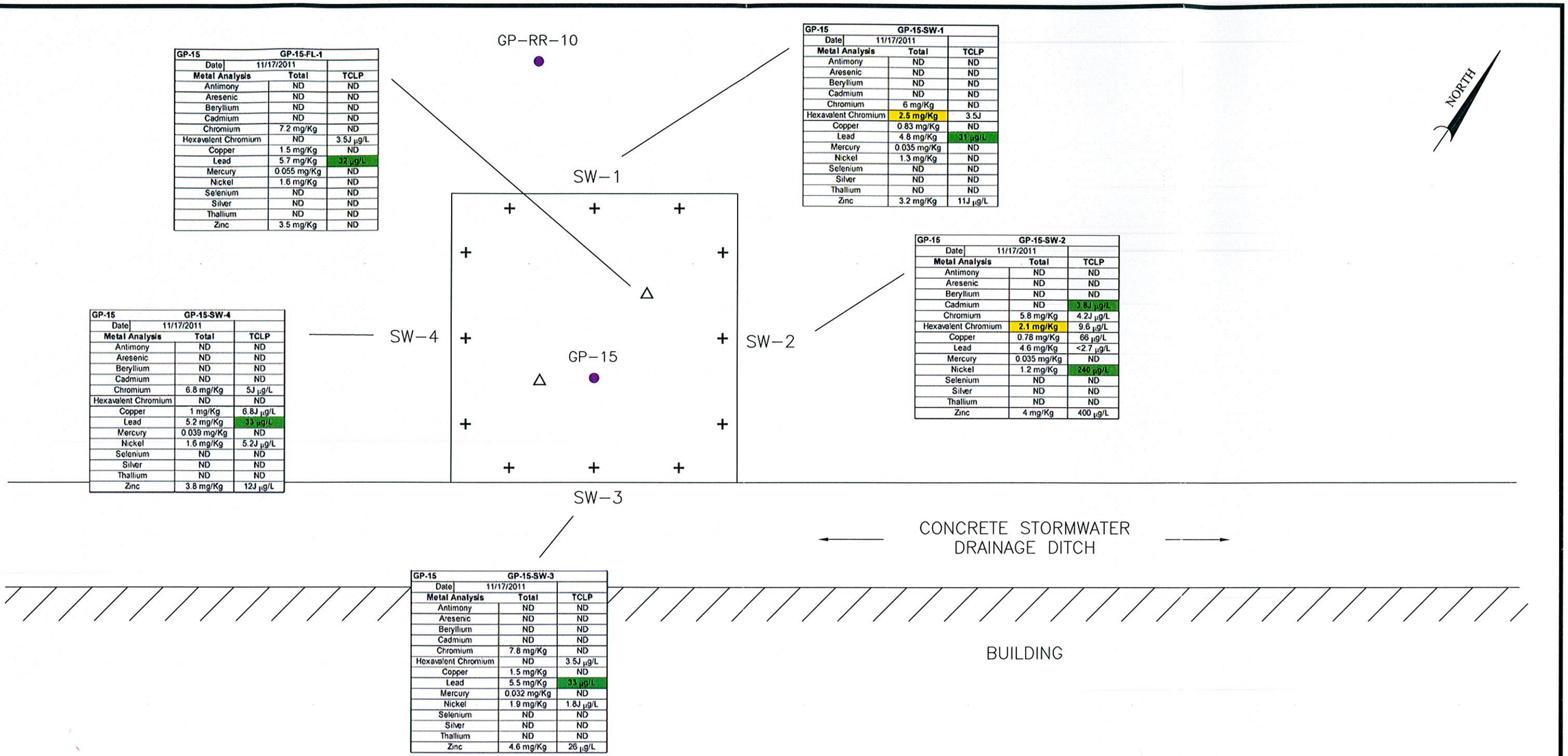
Excavation GP-15, Soil Results SVOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-16-11	31

Drawn: C. Moran 0511324-1.dwg

Project Number: 0511324



GP-15	GP-15-FL-1	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	7.2 mg/Kg	ND
Hexavalent Chromium	ND	3.5J µg/L
Copper	1.5 mg/Kg	ND
Lead	5.7 mg/Kg	32 µg/L
Mercury	0.055 mg/Kg	ND
Nickel	1.6 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	3.5 mg/Kg	ND

GP-15	GP-15-SW-1	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6 mg/Kg	ND
Hexavalent Chromium	2.5 mg/Kg	3.5J
Copper	0.83 mg/Kg	ND
Lead	4.8 mg/Kg	31 µg/L
Mercury	0.035 mg/Kg	ND
Nickel	1.3 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	3.2 mg/Kg	11J µg/L

GP-15	GP-15-SW-2	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	3.8J µg/L
Chromium	5.8 mg/Kg	4.2J µg/L
Hexavalent Chromium	2.1 mg/Kg	9.6 µg/L
Copper	0.78 mg/Kg	66 µg/L
Lead	4.6 mg/Kg	<2.7 µg/L
Mercury	0.035 mg/Kg	ND
Nickel	1.2 mg/Kg	240 µg/L
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	4 mg/Kg	400 µg/L

GP-15	GP-15-SW-4	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6.8 mg/Kg	5J µg/L
Hexavalent Chromium	ND	ND
Copper	1 mg/Kg	6.8J µg/L
Lead	5.2 mg/Kg	33 µg/L
Mercury	0.039 mg/Kg	ND
Nickel	1.6 mg/Kg	5.2J µg/L
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	3.8 mg/Kg	12J µg/L

GP-15	GP-15-SW-3	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	7.8 mg/Kg	ND
Hexavalent Chromium	ND	3.5J µg/L
Copper	1.5 mg/Kg	ND
Lead	5.5 mg/Kg	33 µg/L
Mercury	0.032 mg/Kg	ND
Nickel	1.9 mg/Kg	1.8J µg/L
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	4.6 mg/Kg	26 µg/L

ALL LOCATIONS ARE APPROXIMATE

0 5'
GRAPHIC SCALE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD	Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs
BOLD	Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results were below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

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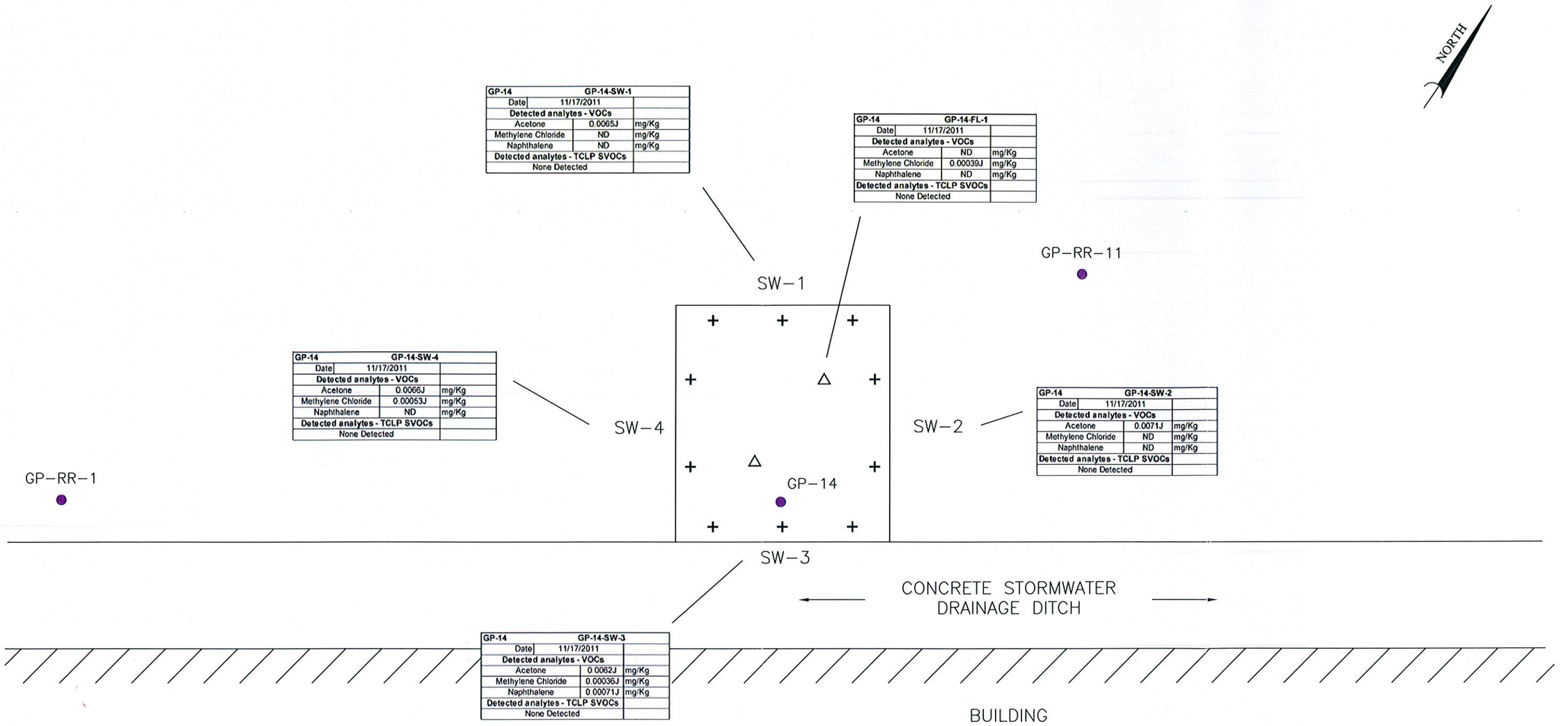
Excavation GP-15, Soil Results Metals (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-16-11	32

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



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Excavation GP-14, Soil Results VOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-16-11	33

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

NORTH

GP-14	GP-14-SW-1
Date	11/17/2011
Detected analytes - SVOCs	
None Detected	
Detected analytes - TCLP SVOCs	
None Detected	

GP-14	GP-14-FL-1
Date	11/17/2011
Detected analytes - SVOCs	
None Detected	
Detected analytes - TCLP SVOCs	
None Detected	

GP-RR-11

SW-1

GP-14	GP-14-SW-4
Date	11/17/2011
Detected analytes - SVOCs	
None Detected	
Detected analytes - TCLP SVOCs	
None Detected	

SW-4

SW-2

GP-14	GP-14-SW-2
Date	11/17/2011
Detected analytes - SVOCs	
None Detected	
Detected analytes - TCLP SVOCs	
None Detected	

GP-RR-1

GP-14

SW-3

CONCRETE STORMWATER DRAINAGE DITCH

BUILDING

GP-14	GP-14-SW-3	
Date	11/17/2011	
Detected analytes - SVOCs		
Anthracene		0.56 mg/Kg
Benzo(a)anthracene		**0.24 mg/Kg**
Benzo(a)pyrene		**0.26 mg/Kg**
Benzo(b)fluoranthene		**0.38 mg/Kg**
Benzo(g,h,i)perylene		0.16J mg/Kg
Benzo(k)flouranthene		0.15J mg/Kg
Chrysene		0.33 mg/Kg
Fluoranthene		0.75 mg/Kg
Indeno(1,2,3-cd)pyrene		**0.18J mg/Kg**
Phenanthrene		0.58 mg/Kg
Pyrene		0.52 mg/Kg
Detected analytes - TCLP SVOCs		
None Detected		

0 5'
GRAPHIC SCALE

ALL LOCATIONS ARE APPROXIMATE

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs
BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms
µg/L = mircograms per Liter
ND = non-detect (Results were below the method detection limits)
TCLP = Toxicity Characteristic Leaching Procedure

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS
△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

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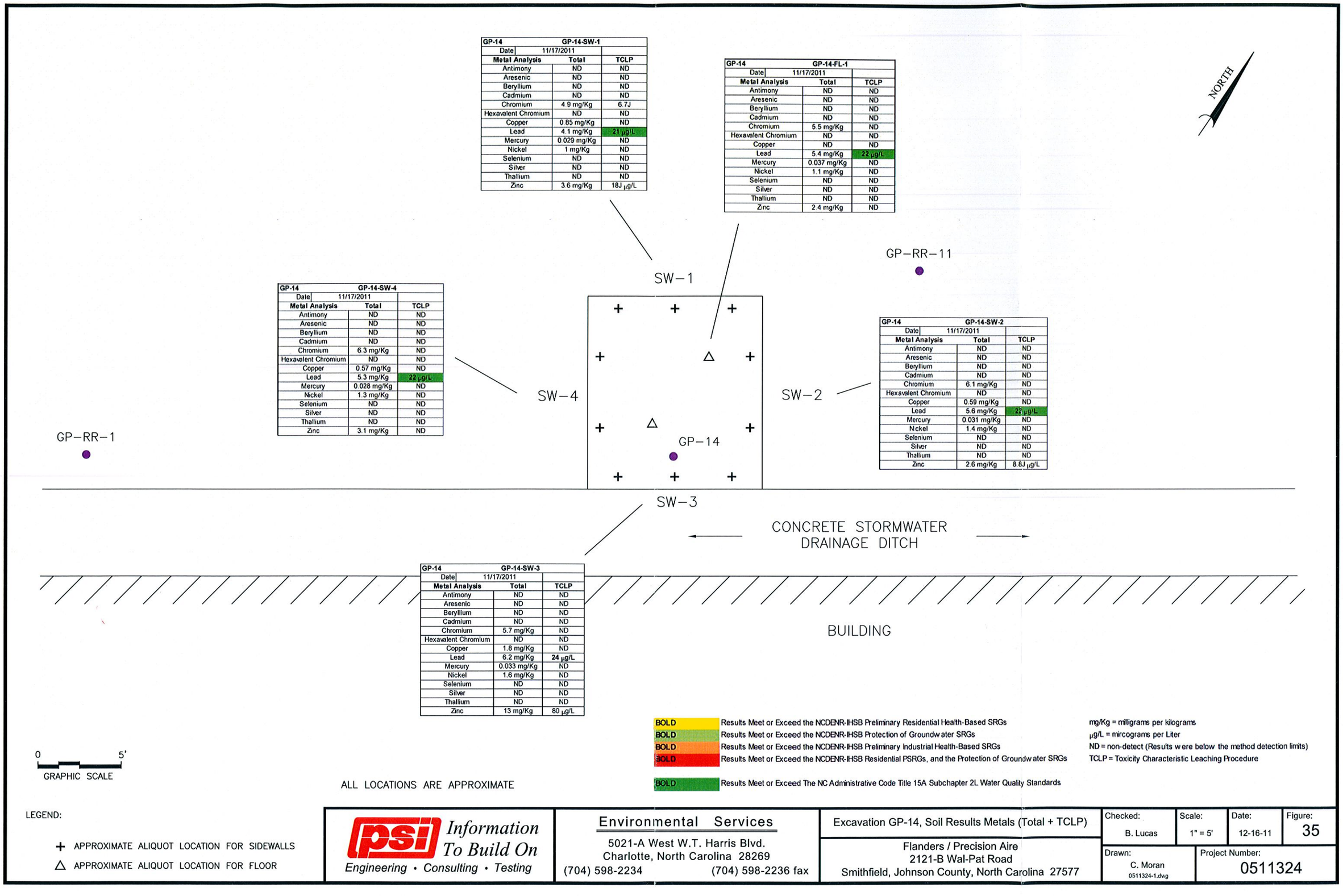
Excavation GP-14, Soil Results SVOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-16-11	34
Drawn: C. Moran 0511324-1.dwg	Project Number: 0511324		



GP-14	GP-14-SW-1	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	4.9 mg/Kg	6.7J
Hexavalent Chromium	ND	ND
Copper	0.85 mg/Kg	ND
Lead	4.1 mg/Kg	21 µg/L
Mercury	0.029 mg/Kg	ND
Nickel	1 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	3.6 mg/Kg	18J µg/L

GP-14	GP-14-FL-1	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	5.5 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	ND	ND
Lead	5.4 mg/Kg	22 µg/L
Mercury	0.037 mg/Kg	ND
Nickel	1.1 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	2.4 mg/Kg	ND

GP-14	GP-14-SW-4	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6.3 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	0.57 mg/Kg	ND
Lead	5.3 mg/Kg	22 µg/L
Mercury	0.028 mg/Kg	ND
Nickel	1.3 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	3.1 mg/Kg	ND

GP-14	GP-14-SW-2	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6.1 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	0.59 mg/Kg	ND
Lead	5.6 mg/Kg	23 µg/L
Mercury	0.031 mg/Kg	ND
Nickel	1.4 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	2.6 mg/Kg	8.8J µg/L

GP-14	GP-14-SW-3	
Date	11/17/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	5.7 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	1.8 mg/Kg	ND
Lead	6.2 mg/Kg	24 µg/L
Mercury	0.033 mg/Kg	ND
Nickel	1.6 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	13 mg/Kg	80 µg/L

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results were below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

ALL LOCATIONS ARE APPROXIMATE

LEGEND:

+ APPROXIMATE ALIQUOT LOCATION FOR SIDEWALLS

△ APPROXIMATE ALIQUOT LOCATION FOR FLOOR

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Excavation GP-14, Soil Results Metals (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
B. Lucas	1" = 5'	12-16-11	35

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324

WOODS / UNDER COVER

Area-2	Area-2-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.012J	mg/Kg
Methylene Chloride	0.0031J	mg/Kg
Detected analytes - TCLP SVOCs		
None Detected		

Area-1	Area-1-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.011J	mg/Kg
Methylene Chloride	0.0032J	mg/Kg
Detected analytes - TCLP SVOCs		
None Detected		

Area-5	Area-5-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.012J	mg/Kg
Methylene Chloride	0.0039J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-3	Area-3-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	ND	mg/Kg
Methylene Chloride	0.0025J	mg/Kg
Detected analytes - TCLP SVOCs		
None Detected		

Area-3	Area-3-SS-2	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.0096J	mg/Kg
Methylene Chloride	0.0029J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-7	Area-7-SS-1	
Date	11/16/2011	
Detected analytes - VOCs		
Acetone	0.011J	mg/Kg
Methylene Chloride	0.00030J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-7	Area-7-SS-2	
Date	11/16/2011	
Detected analytes - VOCs		
Acetone	0.010J	mg/Kg
Methylene Chloride	0.0013J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-4	Area-4-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.016J	mg/Kg
Methylene Chloride	0.0041J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-4	Area-4-SS-2	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.010J	mg/Kg
Methylene Chloride	0.0037J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-8	Area-8-SS-1	
Date	11/16/2011	
Detected analytes - VOCs		
Acetone	0.011J	mg/Kg
Methylene Chloride	0.0015J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-8	Area-8-SS-2	
Date	11/16/2011	
Detected analytes - VOCs		
Acetone	0.0077J	mg/Kg
Methylene Chloride	0.0015J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-6	Area-6-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.010J	mg/Kg
Methylene Chloride	0.0036J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-6	Area-6-SS-2	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.0077J	mg/Kg
Methylene Chloride	0.0030J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-11	Area-11-SS-1	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	0.0092J	mg/Kg
Methylene Chloride	0.0013J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-11	Area-11-SS-2	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	ND	mg/Kg
Methylene Chloride	ND	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-9	Area-9-SS-1	
Date	11/16/2011	
Detected analytes - VOCs		
Acetone	0.0085J	mg/Kg
Methylene Chloride	0.0013J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-10	Area-10-SS-1	
Date	11/16/2011	
Detected analytes - VOCs		
Acetone	0.0074J	mg/Kg
Methylene Chloride	0.0017J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

Area-10	Area-10-SS-2	
Date	11/15/2011	
Detected analytes - VOCs		
Acetone	ND	mg/Kg
Methylene Chloride	0.0012J	mg/Kg
Detected analytes - TCLP VOCs		
None Detected		

AREA–1
AREA–2
AREA–3
AREA–4
AREA–5
AREA–6
AREA–7
AREA–8
AREA–9
AREA–10
AREA–11

GRAVEL

DRIVEWAY

NORTH

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundw ater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundw ater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results w ere below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

0 20'
GRAPHIC SCALE

LEGEND:

+ ALIQUOT LOCATION FOR COMPOSITE SAMPLE–1

● ALIQUOT LOCATION FOR COMPOSITE SAMPLE–2

ALL LOCATIONS ARE APPROXIMATE

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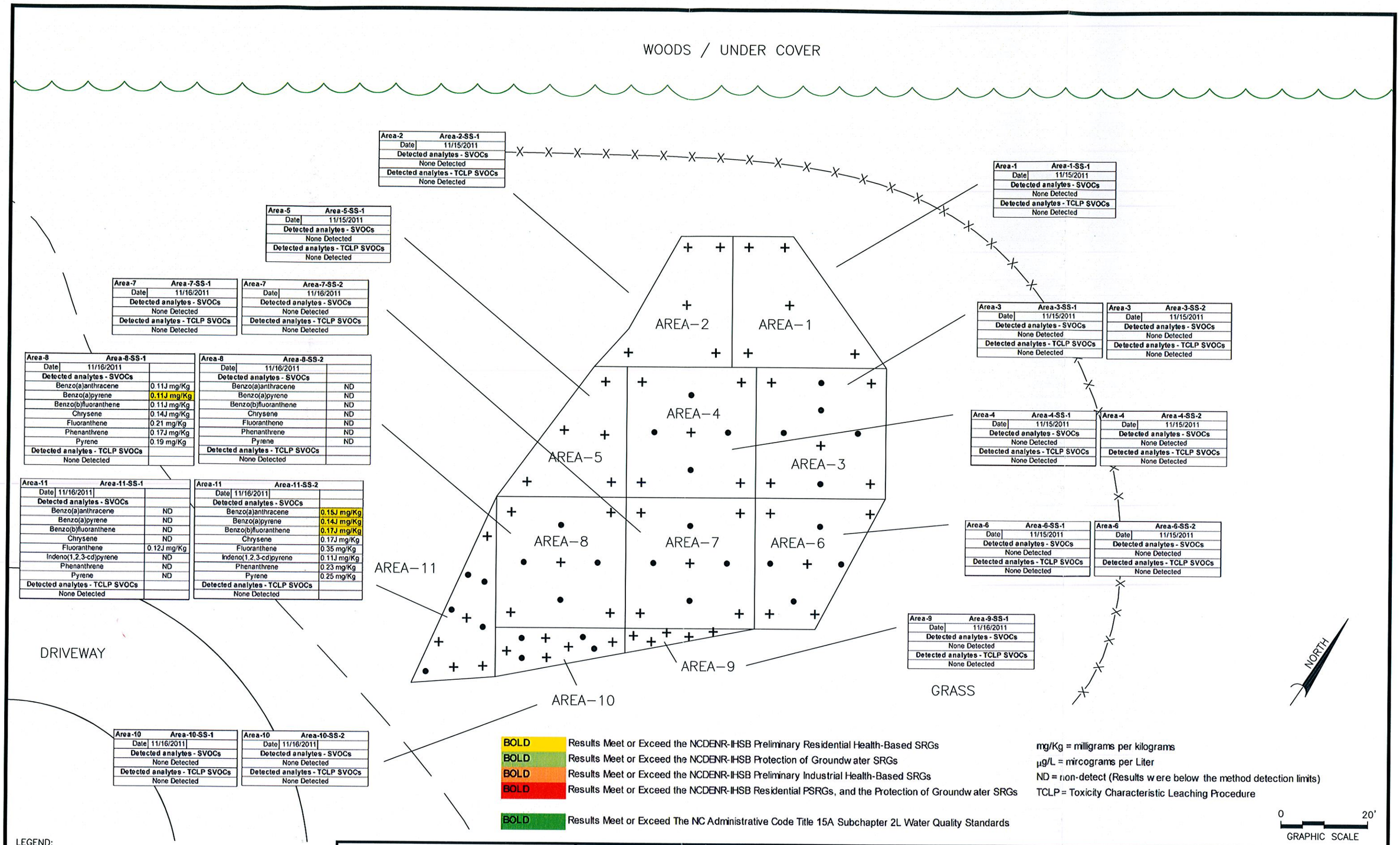
Soil Stockpile, VOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	12-12-11	36

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



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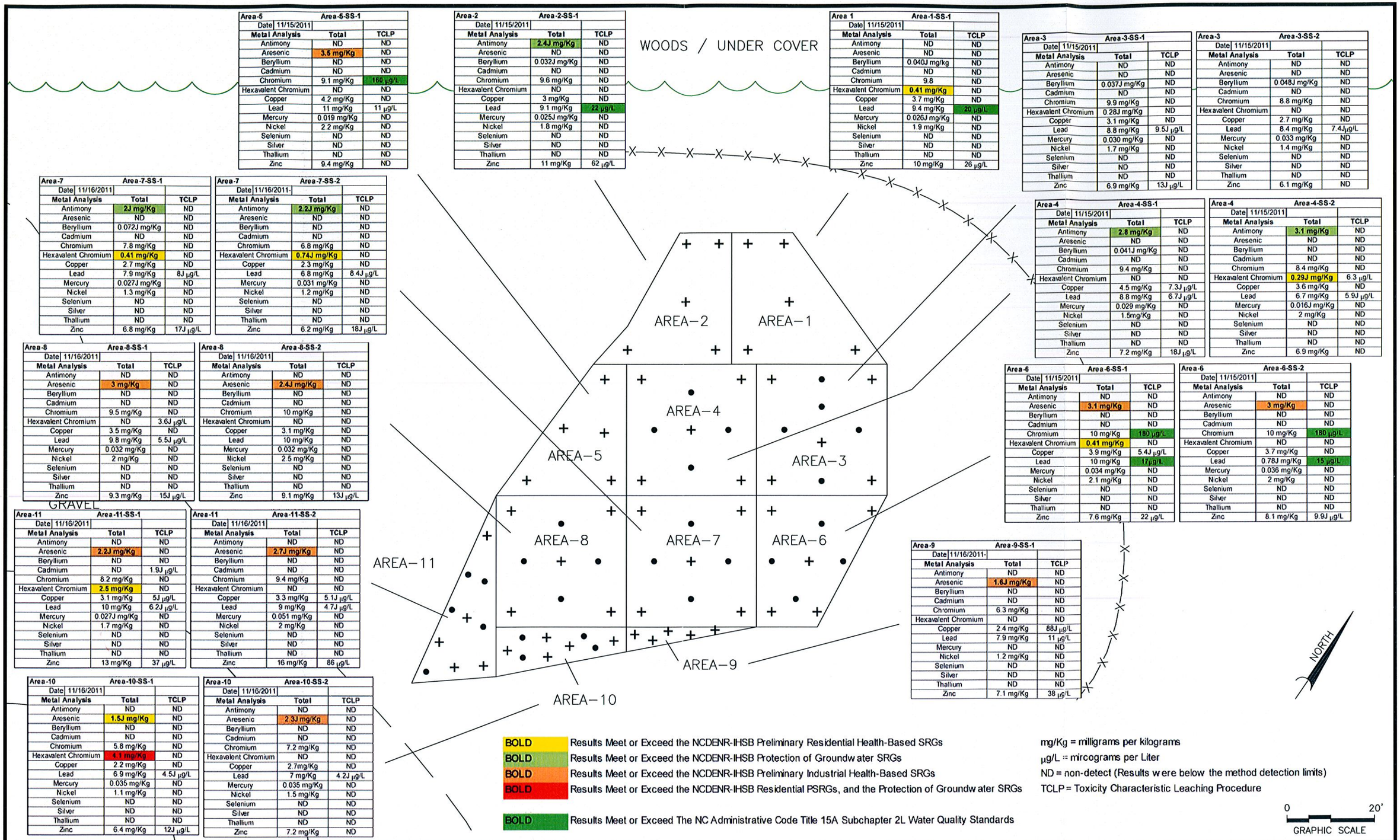
Soil Stockpile, SVOCs (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	12-12-11	37

Drawn:	Project Number:
C. Moran 0511324-1.dwg	0511324



Area-5	Area-5-SS-1	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	3.5 mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	9.1 mg/Kg	160 µg/L
Hexavalent Chromium	ND	ND
Copper	4.2 mg/Kg	ND
Lead	11 mg/Kg	11 µg/L
Mercury	0.019 mg/Kg	ND
Nickel	2.2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	9.4 mg/Kg	ND

Area-2	Area-2-SS-1	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	2.4J mg/Kg	ND
Aresenic	ND	ND
Beryllium	0.032J mg/Kg	ND
Cadmium	ND	ND
Chromium	9.6 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	3 mg/Kg	ND
Lead	9.1 mg/Kg	22 µg/L
Mercury	0.025J mg/Kg	ND
Nickel	1.8 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	11 mg/Kg	62 µg/L

Area 1	Area-1-SS-1	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	0.040J mg/kg	ND
Cadmium	ND	ND
Chromium	9.8	ND
Hexavalent Chromium	0.41 mg/Kg	ND
Copper	3.7 mg/Kg	ND
Lead	9.4 mg/Kg	20 µg/L
Mercury	0.026J mg/Kg	ND
Nickel	1.9 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	10 mg/Kg	26 µg/L

Area-3	Area-3-SS-1	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	0.037J mg/Kg	ND
Cadmium	ND	ND
Chromium	9.9 mg/Kg	ND
Hexavalent Chromium	0.28J mg/Kg	ND
Copper	3.1 mg/Kg	ND
Lead	8.8 mg/Kg	9.5J µg/L
Mercury	0.030 mg/Kg	ND
Nickel	1.7 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	6.9 mg/Kg	13J µg/L

Area-3	Area-3-SS-2	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	ND	ND
Beryllium	0.048J mg/Kg	ND
Cadmium	ND	ND
Chromium	8.8 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	2.7 mg/Kg	ND
Lead	8.4 mg/Kg	7.4J µg/L
Mercury	0.033 mg/Kg	ND
Nickel	1.4 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	6.1 mg/Kg	ND

Area-7	Area-7-SS-1	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	2J mg/Kg	ND
Aresenic	ND	ND
Beryllium	0.072J mg/Kg	ND
Cadmium	ND	ND
Chromium	7.8 mg/Kg	ND
Hexavalent Chromium	0.41 mg/Kg	ND
Copper	2.7 mg/Kg	ND
Lead	7.9 mg/Kg	8J µg/L
Mercury	0.027J mg/Kg	ND
Nickel	1.3 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	6.8 mg/Kg	17J µg/L

Area-7	Area-7-SS-2	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	2.2J mg/Kg	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6.8 mg/Kg	ND
Hexavalent Chromium	0.74J mg/Kg	ND
Copper	2.3 mg/Kg	ND
Lead	6.8 mg/Kg	8.4J µg/L
Mercury	0.031 mg/Kg	ND
Nickel	1.2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	6.2 mg/Kg	18J µg/L

Area-4	Area-4-SS-1	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	2.8 mg/Kg	ND
Aresenic	ND	ND
Beryllium	0.041J mg/Kg	ND
Cadmium	ND	ND
Chromium	9.4 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	4.5 mg/Kg	7.3J µg/L
Lead	8.8 mg/Kg	6.7J µg/L
Mercury	0.029 mg/Kg	ND
Nickel	1.5mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	7.2 mg/Kg	18J µg/L

Area-4	Area-4-SS-2	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	3.1 mg/Kg	ND
Aresenic	ND	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	8.4 mg/Kg	ND
Hexavalent Chromium	0.29J mg/Kg	6.3 µg/L
Copper	3.6 mg/Kg	ND
Lead	6.7 mg/Kg	5.9J µg/L
Mercury	0.016J mg/Kg	ND
Nickel	2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	6.9 mg/Kg	ND

Area-8	Area-8-SS-1	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	3 mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	9.5 mg/Kg	ND
Hexavalent Chromium	ND	3.6J µg/L
Copper	3.5 mg/Kg	ND
Lead	9.8 mg/Kg	5.5J µg/L
Mercury	0.032 mg/Kg	ND
Nickel	2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	9.3 mg/Kg	15J µg/L

Area-8	Area-8-SS-2	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	2.4J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	10 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	3.1 mg/Kg	ND
Lead	10 mg/Kg	ND
Mercury	0.032 mg/Kg	ND
Nickel	2.5 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	9.1 mg/Kg	13J µg/L

Area-6	Area-6-SS-1	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	3.1 mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	10 mg/Kg	180 µg/L
Hexavalent Chromium	0.41 mg/Kg	ND
Copper	3.9 mg/Kg	5.4J µg/L
Lead	10 mg/Kg	17 µg/L
Mercury	0.034 mg/Kg	ND
Nickel	2.1 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	7.6 mg/Kg	22 µg/L

Area-6	Area-6-SS-2	
Date	11/15/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	3 mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	10 mg/Kg	180 µg/L
Hexavalent Chromium	ND	ND
Copper	3.7 mg/Kg	ND
Lead	0.78J mg/Kg	15 µg/L
Mercury	0.036 mg/Kg	ND
Nickel	2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	8.1 mg/Kg	9.9J µg/L

Area-11	Area-11-SS-1	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	2.2J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	1.9J µg/L
Chromium	8.2 mg/Kg	ND
Hexavalent Chromium	2.5 mg/Kg	ND
Copper	3.1 mg/Kg	5J µg/L
Lead	10 mg/Kg	6.2J µg/L
Mercury	0.027J mg/Kg	ND
Nickel	1.7 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	13 mg/Kg	37 µg/L

Area-11	Area-11-SS-2	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	2.7J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	9.4 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	3.3 mg/Kg	5.1J µg/L
Lead	9 mg/Kg	4.7J µg/L
Mercury	0.051 mg/Kg	ND
Nickel	2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	16 mg/Kg	86 µg/L

Area-9	Area-9-SS-1	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	1.6J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	6.3 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	2.4 mg/Kg	88J µg/L
Lead	7.9 mg/Kg	11 µg/L
Mercury	ND	ND
Nickel	1.2 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	7.1 mg/Kg	38 µg/L

Area-10	Area-10-SS-1	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	1.5J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	5.8 mg/Kg	ND
Hexavalent Chromium	4.1 mg/Kg	ND
Copper	2.2 mg/Kg	ND
Lead	6.9 mg/Kg	4.5J µg/L
Mercury	0.035 mg/Kg	ND
Nickel	1.1 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	6.4 mg/Kg	12J µg/L

Area-10	Area-10-SS-2	
Date	11/16/2011	
Metal Analysis	Total	TCLP
Antimony	ND	ND
Aresenic	2.3J mg/Kg	ND
Beryllium	ND	ND
Cadmium	ND	ND
Chromium	7.2 mg/Kg	ND
Hexavalent Chromium	ND	ND
Copper	2.7mg/Kg	ND
Lead	7 mg/Kg	4.2J µg/L
Mercury	0.035 mg/Kg	ND
Nickel	1.5 mg/Kg	ND
Selenium	ND	ND
Silver	ND	ND
Thallium	ND	ND
Zinc	7.2 mg/Kg	ND

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Residential Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Protection of Groundwater SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Preliminary Industrial Health-Based SRGs

BOLD Results Meet or Exceed the NCDENR-IHSB Residential PSRGs, and the Protection of Groundwater SRGs

BOLD Results Meet or Exceed The NC Administrative Code Title 15A Subchapter 2L Water Quality Standards

mg/Kg = milligrams per kilograms

µg/L = mircograms per Liter

ND = non-detect (Results were below the method detection limits)

TCLP = Toxicity Characteristic Leaching Procedure

0 20'

GRAPHIC SCALE

LEGEND:

+ ALIQUOT LOCATION FOR COMPOSITE SAMPLE–1

● ALIQUOT LOCATION FOR COMPOSITE SAMPLE–2

ALL LOCATIONS ARE APPROXIMATE

psi Information To Build On
Engineering • Consulting • Testing

Environmental Services
5021-A West W.T. Harris Blvd.
Charlotte, North Carolina 28269
(704) 598-2234 (704) 598-2236 fax

Soil Stockpile, Soil Results Metals (Total + TCLP)

Flanders / Precision Aire
2121-B Wal-Pat Road
Smithfield, Johnson County, North Carolina 27577

Checked:	Scale:	Date:	Figure:
M. McCagg	1" = 20'	12-12-11	38

Drawn:	Project Number:
C. Moran	0511324
0511324-1.dwg	

APPENDIX A
PSI QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PLAN

PSI will implement quality assurance/quality control (QA/QC) procedures for sampling and analysis summarized in this Remedial Investigation Report. The purpose of implementing a quality assurance program is to provide supporting data regarding the validity of the information obtained as part of the investigation. The QA/QC plan includes standard methods for determining and reporting QA/QC results. This section provides a summary of the QA/QC process proposed for this field investigation and subsequent data analysis.

QUALITY ASSURANCE

The objectives of the QA plan are to involve planning, implementation, assessment and quality improvement to ensure representative samples are submitted for analytical methods, and to provide data that is accurate and precise. The Quality Assurance (QA) objectives for all data collected during the sampling program will follow QA Guidelines established by PSI and Con-Test Analytical Laboratory. QA requires the collection of the following Quality Control (QC) samples:

- Trip Blanks: will be prepared, sealed and placed in each sample cooler at the laboratory prior to shipping/delivery of the cooler to the project site. (Note: a Trip Blank consists of distilled/deionized or analyte-free water. The sample containers are left in the coolers until the coolers are shipped back to the laboratory with samples for analysis. The purpose of a Trip Blank is to evaluate whether contaminants where introduced into the shipping container (Coolers) during shipment to and from the laboratory). If contaminants are found in the Trip Blank, the Trip Blank and sample data will be evaluated by the PSI and NCDENR to determine if the sample data are of acceptable quality.
- Duplicate Samples: A Duplicate Samples consists of soil and or groundwater collected during the sampling of either soil or groundwater. The duplicate samples are collected at the same time the parent sample is collected. Each duplicate sample will be analyzed for the same parameters that the parent sample is analyzed for. The sample results of the duplicate sample will be compared to the results of the parent sample to determine if the results are within the acceptable quality range. If the duplicate sample is not within the acceptable quality range than the sample data will be further evaluated by PSI and NCDENR to determine if the sample data is valid.
- Method Blanks: conducted by the analytical laboratory as specified by US EPA for Level III analysis; and
- Matrix Spike/Matrix Spike Duplicates (MS/MSD): one sample in twenty (5%), preferable a sample expected to contain contaminants.

Data validation required for this project includes a review of the following:

- Holding Time;
- Trip Blanks;
- Method Blanks;
- MS/MSD; and
- Detection Limits.

The overall QA objective is to develop and implement procedures for field sampling, chain-of-custody, laboratory analysis, and reporting, that will provide legally defensible data. Specific procedures to be used for sampling, chain-of-custody, calibration of field instruments, and laboratory analysis are described in the ESC Quality Assurance Manual, and the PSI Field Methods Technical Guidance, April 2004.

Data Quality Objectives

After the analytical laboratory has analyzed samples and performed corresponding quality controls, an evaluation of the control results will be performed to validate the data generated for the project. This evaluation typically includes a comparison of the quality control results to established criteria. These criteria are data quality objectives (DQO) also known as acceptance criteria for quality control. The DQOs are composed of written expectations for accuracy, precision, and detection limits for each analyte by test and matrix. The laboratory DQO's are detailed in the QAM that can be found in Appendix F. The basic items that will be reviewed are as follows:

Accuracy (percent recovery)
Matrix Spike (MS)
Laboratory Control Sample (LCS)

Precision (RPD)
Sample Duplicate (SD)
Matrix Spike Duplicate (MSD)
Laboratory Control Sample Duplicate (LCSD)

The following table presents the Data Quality Objectives (DQO) as determined through the DQO Process.

Table – 1
DQO PROCESS

	Flanders/PrecisionAire Smithfield, North Carolina, Facility
State the Problem	To further assess the soil and groundwater impact in the area of the Former Railroad Spur, On-site Soil Stockpile, and the Abandon Wastewater Sumps discovered during an Extended Phase II ESA completed by PSI in April 2011. To install soil test borings to collect soil and groundwater samples in each of the areas previous mentioned as part of an Additional Environmental Assessment which is being required by the NCDENR Division of Waste Management – Superfund Section – Inactive Hazardous Sites Branch. The Additional Environmental Assessment will be conducted in accordance with the Inactive Hazardous Sites Branch's Guidance Document "Guidelines for Assessment and Cleanup", dated August 2011.

DQO	Flanders/PrecisionAire Smithfield, North Carolina, Facility
Identify the Decision	• Determine if the concentrations of the chemicals of concern (COCs) exceed the NCDENR-IHSB's soil remediation goals (SRGs) and 2L Standards for groundwater. If COCs are present that exceed the SRGs and 2L standards, additional testing may be necessary to further define the area of impact. • If the concentrations do not exceed the NCDENR-IHSB Standards then a no further action status will be requested from NCDENR.
Identify Inputs to the Decision	• Determine the average concentrations of the COCs in soil at the subject property using the soil data collected during the field investigations. • Determine the average concentrations of the COCs in groundwater at the subject property using the groundwater data collected during the field investigations. • Determine the groundwater flow direction in the shallow and deep aquifers by gauging depth to groundwater in each of the wells and develop a groundwater contour map for each aquifer. • Analytical data from the soil borings and groundwater monitoring wells will be compared to established NCDENR MSCC for soil and the 2L Standards for groundwater for the COCs to assess if the remaining average concentrations meet the regulatory standards. • Assess the data against the data quality objectives (DQOs). If the sample and replicate analyses fall within the DQOs the data should be considered reliable.

DQO	Flanders/PrecisionAire Smithfield, North Carolina, Facility
Define Study Boundaries	**Former Railroad Spur:** • Twelve (12) soil test borings will be installed to a depth of approximate 8-feet below ground surface (bgs). • Continues soil samples will be collected utilizing a macro-core soil sample (5-feet in length) advanced by a direct push drill rig (Geoprobe®). Two soil samples will be collected from each of the soil test borings. These samples will be collected at the 0-foot to 2-foot interval bgs and the 6-foot to 8-foot interval bgs. • Groundwater samples will be collect from six of the twelve soil test borings installed. • A duplicate soil sample will be collected in the same manner as the parent sample. **On-Site Soil Stockpile:** • Four (4) soil test borings will be installed through the soil stockpile to determine if the native soil under the stockpile has been impacted with CoC detected within the soil of the stockpile. • Continues soil samples will be collected utilizing a macro-core soil sample (5-feet in length) advanced by a direct push drill rig (Geoprobe®). One soil sample will be collected from each of the soil test borings. These samples will be collected within the residual soil underneath the stockpile. The sample interval will be determined in the field at the time of drilling. • No groundwater samples will be collect. **Abandon Wastewater Sumps:** • Two (2) soil test borings will be installed to further evaluate the soil and groundwater in the area of the two wastewater sumps. One soil test boring will be advanced in the area of each wastewater sump. • In the area of Sump-1 continues soil samples will be collected utilizing a macro-core soil sample (5-feet in length) advanced by a direct push drill rig (Geoprobe®). Two soil samples will be collected from the soil test boring (0-feet to 2-feet and 6-feet to 8-feet bgs). • One groundwater sample plus a duplicate groundwater sample will be collect from the soil test boring installed in the area of Sump-2. • A receptor survey will be conducted with in the area of the facility to determine the number, type, land location of any sensitive receptor within 1500 feet of the subject property (i.e. surface bodies of water, drinking water wells commercial and private, basements, crawl spaces, and underground utilities.

DQO	Flanders/PrecisionAire Smithfield, North Carolina, Facility
Develop a Decision Rule	• If the concentrations of COCs do not exceed NCDENR-IHSB's SRGs for soil and the 2L Standard for Groundwater then additional work may or may not be required by NCDENR. • If COC are present that exceed the NCDENR-IHSB SRGs for soil and the 2L Standard for Groundwater, additional testing may be necessary to further delineate the extent of soil and groundwater impact, or NCDENR may require corrective action be conducted at the facility. • If the analytical results of the increment and replicate samples are within plus or minus 30-percent for water samples and 40 percent for soil samples of each other, and all results meet the laboratory DQOs, then the results are considered acceptable.
Specify Decision Error Limits	Field quality control samples including trip blanks, as well as laboratory QC samples of matrix spike and matrix spike duplicate, and lab blanks will provide a clear measure of method error.
Optimize the Study Design	As a statistical decision error is not being utilized, the iterative process for optimizing the sample design will not be used. However, stratified random sampling techniques will be employed in conjunction with the directed sampling design to collect resource-effective samples.

Field QA/QC Procedures

The following general field documentation procedures will be implemented by PSI field personnel.

- Soil and groundwater samples collected in the field will be labeled in general accordance with standard protocol.

- Chain-of-Custody records will be used to document sample handling and shipping procedures. Chain-of-Custody records will trace the sample(s) from collection, through any custody transfers to the analytical laboratory. Information recorded on the Chain-of-Custody records will include location of sample collection, sample identification (I D) number, date and time of collection, number and type of sample containers and analyses requested. The shipping conditions will also be described on the Chain-of-Custody records. The name of the sampler(s) as well as the name of the person relinquishing the samples will be documented.

- Soil Sample(s) – One (1) duplicate quality control field sample will be collected and analyzed for every ten (10) soil samples collected and submitted for analysis. Each sample will be analyzed for VOCs using EPA Method 8260. The NCDENR Aquifer Protection Section recommends a decision rule based on a relative standard deviation (RSD) of 40 percent between parent sample and its associated quality control samples (i.e. duplicates). For any soil sample where the RSD between the parent and quality control samples differs by more than 40 percent, the data will be evaluated by the PSI and NCDENR to determine if the data is acceptable or if re-sampling is necessary.

- Water Sample(s) – One (1) duplicate quality control field sample will be collected and analyzed for the same parameters as the parent sample. If contaminants are found in the trip blank, the trip blank and sample data will be evaluated by the PSI and NCDENR to determine if the sample data are of acceptable quality. The NCDENR IHSB recommends a decision rule based on a relative standard deviation (RSD) of 30 percent between parent sample and its associated quality control samples (i.e. duplicates). For any soil sample where the RSD between the parent and quality control samples differs by more than 30 percent, the data will be evaluated by the PSI and NCDENR to determine if the data is acceptable or if re-sampling is necessary.

Laboratory QA/QC

The certified laboratory will analyze soil samples following QC protocols established in the Con-Test Analytical Laboratory. Quality Assurance Manual (QAM) and SW-846. The purpose is to provide scientifically valid laboratory results from the proper application of the techniques of qualitative and quantitative analysis. Qualitative analysis is the identification of the compounds in a given sample, while quantitative analysis is the performance of internal testing using standards that establish the calibration for the instrumentation being used.

The laboratory will maintain a Quality Assurance Plan and perform Quality Assurance/Quality Control procedures.

Sampling Documentation

The following paragraphs describe PSI procedures for proper sampling documentation.

1. Sampling procedures shall be documented in field notes that will contain the following information:
   - Sample collection procedures,
   - Date and time of collection,
   - Date of shipping,
   - Sample collection location,
   - Sample identification number(s),
   - Intended analysis,
   - Quality control samples,
   - Sample preservation,
   - Name of collector,
   - Any pertinent observations.

2. Samples shall be labeled with the following information:
   - Sample number,
   - Well/boring number,
   - Date and time sample was collected,
   - Name of collector, and
   - Sample preservatives (if required).

3. Handling of the samples shall be recorded on a chain-of-custody form that will include the following information:
   - Site name,

- Signature of collector,
- Date and time of collection,
- Sample identification number,
- Number of containers in sample set,
- Description of sample and container,
- Names and signatures of persons, and the companies or agencies they represent, who are involved in the chain of possession,
- Inclusive dates and times of possession, and
- Analyses to be completed.

Data Management

The data collected during this investigation will be entered into a soil and groundwater database established in a spread sheet program (i.e., Microsoft® Excel). The data will include sample and laboratory identification, detected compounds, detection limits, and QC sample results.

APPENDIX B

Boring Logs

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/7/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-1	0'-2'	NRT	No	GP-RR-1-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-1-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/6/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-2	0'-2'	NRT	No	GP-RR-2-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Clayey, Silty, medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-2-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/6/2011**

PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina**

PROJECT NO: 0511-324

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-4	0'-2'	NRT	No	GP-RR-4-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	–	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	–		
	6'-8'	NRT	No	GP-RR-4-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/7/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-5	0'-2'	NRT	No	GP-RR-5-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-5-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/6/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-6	0'-2'	NRT	No	GP-RR-6-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-6-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/7/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-7	0'-2'	NRT	No	GP-RR-7-SS-1*	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	2'-4'	NRT	No	-		
	4'-6'	NRT	No	-	NOTE: Layer of Tar (Creosote) from 0.5 to 0.7 feet bgs)	
	6'-8'	NRT	No	GP-RR-7-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/6/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-8	0'-2'	NRT	No	GP-RR-8-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-8-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/7/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-9	0'-2'	NRT	No	GP-RR-9-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-9-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/6/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-10	0'-2'	NRT	No	GP-RR-10-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	-	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	-		
	6'-8'	NRT	No	GP-RR-10-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/7/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☑ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-RR-11	0'-2'	NRT	No	GP-RR-11-SS-1*	Residuual - Brown, Silty, medium to fine SAND	
	2'-4'	NRT	No	–	Residuual - Tan, Brown, Orange, Clayey, Silty medium to fine SAND	
	4'-6'	NRT	No	–		
	6'-8'	NRT	No	GP-RR-11-SS-2*		Groundwater encountered at 8-feet bgs

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: MRM

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/7/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-SP-1	0'-2'	NRT	No	–	0' - 5.5' Fill (Soil Stockple) Brown Silty Medium to Fine Sand	
	2'-4'	NRT	No	–		
	4'-6'	NRT	No	–		
	6'-8'	NRT	No		5.5'-10.8' Residuum-Tan, Lite Brown-Organge Red Clayey Silty Course to Fine SAND	Soil Sample 6'-8' (GP-SP-SS-1)
	8'-10'	NRT	No			Wet Soil between 9.8' and 10.8'
	10'-12'	NRT	No		10.8'-12' Residuum-Tan, Brown, White, Pink, SILT	

Boring Terminated in residuum at 12 feet bgs

LOGGED BY: BML PREPARED BY: BML

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/8/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-SP-2	0'-2'	NRT	No	–	0' - 5.5' Fill (Soil Stockple) Brown Silty Medium to Fine Sand	
	2'-4'	NRT	No	–		
	4'-6'	NRT	No	–		Soil Sample 5.5' - 7.5' (GP-SP-2-SS-1)
	6'-8'	NRT	No		5.5'-10.8' Residuum-Tan, Lite Brown-Orange, Clayey Silty Course to Fine SAND	Wet Soil between 7.4' and 8.0'
	8'-10'	NRT	No			
	10'-12'	NRT	No		10.3'-12'-Residuum-Tan Fine to Very Fine Sandy SILT	Soil Sample 10.3' - 12' (GP-SP-SS-2)

Boring Terminated in residuum at 12 feet bgs

LOGGED BY: BML PREPARED BY: BML

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **7/8/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☑ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-SP-3	0'-2'	NRT	No	–	0' - 6.8' Fill (Soil Stockple) Brown Silty Medium to Fine Sand	
	2'-4'	NRT	No	–		
	4'-6'	NRT	No	–		Soil Sample 4' - 4' (GP-SP-3-SS-1)
	6'-8'	NRT	No	–	6.8'-8' Residuum-Tan, Pink,White VF Fine Sandy SILT	

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: BML

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

		SHEET 1 OF 1
DATE: **7/8/2011**	PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina**	**PROJECT NO: 0511-324**

☐ FID ☐ PID MODEL & SERIAL NO: **- PID Readings Not Taken -** CALIBRATION DATE/STANDARD: N/A

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☐ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe® Direct Push Tack Mounted Rig**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☒ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH (Approximate)	PID TOTAL ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-SP-4	0'-2'	NRT	No	–	0' - 3.5' Fill (Soil Stockple) Brown Silty Medium to Fine Sand	
	2'-4'	NRT	No	–		
	4'-6'	NRT	No	–	3.5'-8' Residuum-Brown,Tan,Whit-silty course to fine SAND	Soil Sample 4' - 6' (GP-SP-4-SS-1)
	6'-8'	NRT	No	–		

Boring Terminated in residuum at 8 feet bgs

LOGGED BY: BML PREPARED BY: BML

NOTES:

bgs = Below Ground Surface

PID = Photoionization Detector

FID = Flame Ionization Detector

* = Indicates Sample Submitted for Laboratory Analysis

BG = back ground reading

- = No Sample Collected

NRT = No Reading Taken

BORING DATA SHEET

SHEET 1 OF 1

DATE: **3/23/2011** | PROJECT NAME: **Flanders/PrecisionAire - Smithfield, North Carolina** | **PROJECT NO: 0511-324**

☐ FID ☒ PID MODEL & SERIAL NO: **MiniRea 2000** CALIBRATION DATE/STANDARD: **3/21/2011**

HEADSPACE CONTAINER: ☐ 16 OZ GLASS ☐ 8 OZ GLASS ☐ 1 JAR ☐ 2 JAR ☒ ZIP-LOC ☐ OTHER

SAMPLE METHOD: ☐ HAND AUGER ☐ SOLID STEM ☐ SPLIT SPOON ☐ CORER ☒ OTHER **Geoprobe®**

EQUIP DECON: ☐ TAP WATER WASH ☒ STEAM WASHER ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ ALCONOX WASH ☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☐ AIR DRY

SAMPLE LOCATION	SAMPLE NO./ DEPTH Approximate	FID TOTAL ppm BG = 0.3 - 0.6 ppm	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION	NOTES:
GP-31	***0' - 4'**	**0.9**	**No**	G	Fill - Tan, Brown, Silty, Clayey medium to fine SAND with gravel lenses at vearous depths.	Groundwater water sample collected on 4/24/2011

Boring Terminated in residuum at 4 feet bgs

LOGGED BY: BML PREPARED BY: BML

bgs = Below Ground Surface
PID = Photoionization Detector
FID = Flame Ionization Detector
* = Indicates Sample Submitted for Analysis
BG = back ground reading
- = No Sample Collected

NRT = No Reading Taken
C = Coarse
M = Medium
F = Fine